

# THE SCHOOL REVIEW

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## Educational News and Editorial Comment

### EXPERIMENTING WITH THE EDUCATION OF GIRLS

The conservatism of women's colleges has been duly impressed on everybody. When one of these institutions shows any signs whatever of relaxing the rigidity of its entrance requirements, the move is sure to attract widespread interest. Vassar has a regulation which permits experimentation. It is reported that an agreement has been reached by which some of the products of the Lincoln School are to be admitted to Vassar without Latin.

The regulation under which this experiment is to be tried is as follows:

With the consent of the Committee on Admission, the privilege of some substitution within the regularly prescribed course of study may be extended to candidates whose preparation is made under exceptional circumstances, and to candidates from schools which offer special advantages in courses not regularly prescribed. Only courses of a nontechnical character will be considered by the committee.

The Lincoln School will render a great service to society in general if it becomes the agency for carrying over to one woman's college the information which has now become fairly common in some quarters—that a modern education does not depend on a mastery of any particular subject.

It will be interesting to observe the progress of this promising demonstration. Questions like these arise in one's mind: How many cases will be required before the Vassar faculty and others of like traditions will be willing to turn this hesitating and timid experiment into a wholehearted effort to free girls from the bonds of medievalism? After a few cases have been drawn from the Lincoln School, will Vassar venture to accept candidates without Latin from some of the well-established public high schools which have successfully trained hundreds of girls along liberal lines? How long will it be before good courses in home economics, which probably are included now under the ban of technical courses, will be thought of as equally educative with, say, ancient history?

The student of education has long been anxious to see someone who believes thoroughly in Latin try the experiment of giving a first-class education in everything except Latin to good students with a view to determining whether or not the product will be inferior to the Latin product. At last an experiment seems likely to be tried. Vassar will doubtless give us a report very shortly buttressed by careful studies of the outcome. We shall then know whether Latin is necessary to the proper training of a woman and, if so, by how much a woman ignorant of Latin is inferior to one with Latin.

#### RELATION OF BOARDS OF EDUCATION TO MUNICIPAL AUTHORITY

The third report of the National Committee for Chamber of Commerce Co-operation with the Public Schools published in July, 1921, under the title *Know and Help Your Schools*, contributes some interesting facts regarding the relation of boards of education to municipal government. This has been an outstanding issue in American education in recent years—particularly in the larger cities—despite the fact that the courts have ruled repeatedly that public education is a state function and that the power of properly constituted boards of education to make budgets and levy taxes should be subject only to limitations fixed by state law; yet the practices pointed out in the committee's report gathered from 377 cities distributed throughout the United States show a ruthless disregard for this principle of complete separation

of education from local political administration, a principle universally approved by public opinion if not embodied in legal enactments by all the states.

One who has not made a study of the problem might suppose that it is a simple matter to classify any board of education in one of these two groups, but such is not the case. There are all degrees of variation from the board which is completely independent in the full sense of the word, to those in a few of the Eastern cities whose budget must be passed on, and may be reduced by, as many as three or four different municipal authorities. In this middle group lie those boards whose budgets are not passed upon by the mayor or selectmen but by the entire group of voters assembled for that purpose in an annual town or school meeting. Other boards of education are not dependent upon municipal authorities, but are far from independent in that their budgets must be passed upon by some county or state commission or by some other specially constituted body not related to the municipal government. This middle group which is not definitely independent, and yet is not dependent upon the mayor or some municipal authority, is called "special." All such boards are dependent but in a different way and usually in a smaller degree than are those definitely named "dependent."

The report shows that 47 per cent of the 377 boards of education are independent of municipal authority, while 32 per cent are partly dependent or "special," and 21 per cent are dependent. When these boards are distributed according to the geographical location of the cities, it is found that the practices in different sections of the United States differ widely.

TABLE I\*

GEOGRAPHIC DISTRIBUTION OF BOARDS OF EDUCATION WITH REFERENCE TO THEIR RELATION TO MUNICIPAL AUTHORITY

Geographic Section	Number of Cities	Percentage Independent	Percentage Special	Percentage Dependent
Eastern.....	130	34	28	38
Southern.....	50	58	8	34
Great Lakes.....	106	47	41	12
Great Plains.....	56	77	21	2
Western.....	35	28	69	3
United States.....	377	47	32	21

\*Compiled from data given in the report.

Further variation in practices is noted when the same cities are distributed according to population.

TABLE II\*

DISTRIBUTION OF CITIES ACCORDING TO POPULATION AND THE RELATION OF THEIR  
BOARDS OF EDUCATION TO MUNICIPAL AUTHORITY

	Number	Percentage Independent	Percentage Special	Percentage Dependent
Cities under 30,000 population . . . . .	349	49	35	16
Cities of 30,000 population but less than 100,000 . . . . .	91	44	26	30
Cities of 100,000 population and over	47	40	28	32

\*Compiled from data given in the report.

In the light of these facts it is not hard to understand why there is great variation in the standards of excellence of city schools. How can a city expect to have good schools if it permits uninformed city officials to make or mar its school budget? Yet this is the handicap under which one-third of the cities listed in the report conduct their schools.

#### STUDENT GOVERNMENT IN ENGLAND

There has been going on in England in recent months a vigorous movement for the inauguration of pupil-government in schools. An editorial note in the Educational Supplement of the *London Times*, commenting on the matter, is as follows:

At a recent conference in France the government of schools by the scholars was described as a subject over which the British educational world had gone crazy. The idea has been carried to far greater extremes in Austria and to disastrous extremes in Russia. At its best the system, as introduced in England, is an extension of the prefect system: a development of the house system; or an organization of the school social life by committees of children with the teaching staff as advisers. In some cases imitation parliaments and courts of justice are set up to deal with offences; in extreme cases the children are left to thrash out even the rudiments of order for themselves. "Self-government" in its extreme forms is deprecated by Dr. Montessori and other pioneers of educational freedom as a revolutionary movement, shifting unfairly and unwisely the burden of responsibility from old shoulders to young. Nevertheless, "self-government" may, by a curious paradox, be found in many schools where, in the matter of lessons, routine teaching methods prevail, which give children little scope for intelligence and initiative.

The *Times* then gives its first page to a leading article by Mr. James Simpson, of Rendcomb College, in the course of which appear the following paragraphs:



Self-government, in so far as it represents an educational "movement," appears to me to have reached a rather critical stage in its advance, at which discussion of a candid nature is peculiarly needful. The more superficial features of self-government and the rather loose vocabulary which has become attached to it are now becoming popular. That means inevitably that a number of teachers are adopting or trying to adopt it without any clear notion of the foundation, psychological and social, upon which they are trying to build. It means, to put it brutally, that self-government is just now associated with a very considerable amount of cant. And it means that the "movement" itself is likely to be endangered by the rather silly enthusiasm of some of its less reflecting adherents.

Let us come at once to the crucial question which is always, and naturally, asked by the sceptical or the curious. What is the extent of the freedom which self-government in this sense involves? On this point it is possible to talk amazing nonsense. We must realize first that all educational freedom is inside a carefully selected environment, and must of necessity be so. Even if "tradition" is to play no other part in this kind of education, it must (as representing the best educational ideas of the past and present) play a part in selecting this environment.

In practice the question which seems to cause most searching of heart in those who are introducing the method into their schools is, "Must the children be free to choose the subjects of their curriculum, to decide the hours of work and play, and to attend lessons or not as they please?"

One question frequently asked in connexion with self-government acquires a special importance, "What is to be the position of the teacher?" or, to put the question in its more usual form, "How far is the teacher to interfere?" As soon as we begin to think of giving some kind of wider freedom to boys or girls who are used to the ordinary school discipline and arrangements we shall find that there are two factors at our disposal which we can vary as we wish. To some extent we may want to vary them inversely with each other. They are, first, the actual scope of the freedom of choice—the matters in which it is possible to legislate—and, secondly, the extent to which adults take part in discussion and act as ordinary members of the community. In deciding how we are going to treat these two problems we must consider first of all what kind of school it is into which we are going to introduce the new freedom, or, to put it another way, from what it is that the children are going to be set free. If, for example, we were dealing with a school in which personal influence had been carried to an extreme, and loyalty had been made a principal motive of action, it would be essential to the success of the venture that we should reduce as far as possible the part to be played by the adult, however narrow or wide we might have to make the limits of the actual freedom. If, on the other hand, we are going to make an experiment in a school where there is little direct personal influence from the side of the masters, and the old-fashioned, efficient, healthy, but rather inhuman prefect system has free play, our procedure must

be quite different. The trouble in schools of this kind is that the more efficient and conscientious the prefects, the less, as a rule, is there room for initiative on the part of the other boys or girls. What we have to do, then, is primarily to extend as far as possible the range of matters in which the child has responsibility and power of choice; the adult, therefore, can safely be more prominent than in the other case which we have considered. In this instance, indeed, one of the truly educative effects of self-government will be that boys and girls are brought into closer and yet more healthy relations with adults, relations in which they can co-operate with their elders, hear their advice, and accept or reject it on what they believe to be its merits.

#### PLANS FOR IMPROVING STUDENT ADMINISTRATION

The high school at Bucyrus, Ohio, has two plans for the better handling of students which are suggestive.

First, the reports sent home each month to parents are not couched in the terms in which pupil-standings are ordinarily reported. Instead, there are detailed, specific statements showing whether the student is excellent, good, fair, below average, or failure, in the following respects: (1) knowledge of subject, (2) contribution to class, (3) thoroughness, (4) responsibility, (5) willingness to co-operate, (6) initiative, (7) prompt, regular attendance.

In the second place, the faculty has been organized as indicated in the following bulletin:

There will be five committees, the suggestions, morale, health, social, and how-to-study committees.

The suggestions committee is to receive and consider suggestions from students and faculty and recommend any changes to the principal.

The morale committee is to analyze morale, determine the essentials for good morale of a public school, relate such to high school, and formulate and build a good morale among the students and faculty.

The health committee is to study the health situation among the students and faculty of the high school, make plans which will improve the health conditions of the students and faculty, and then execute such after their approval.

The social committee in the light of a modern viewpoint in secondary education is to plan a social program for students and faculty and execute such after approval.

The how-to-study committee is to study this school problem, make plans that would be helpful to teachers and pupils, and execute such after approval.

SECTIONAL MEETINGS OF THE AMERICAN ASSOCIATION FOR THE  
ADVANCEMENT OF SCIENCE

The meeting of the American Association for the advancement of Science was held December 28-30 at Toronto for the second time in its history. It was the occasion for a more complete association between the workers in the field of education and psychology of the two countries, Canada and the United States, than usually takes place. A number of Canadians read papers in the meetings of both sections. These papers presented points of view of Canadian men of science upon general aspects of their field or represented particular types of research which they are carrying on. The research in some cases is of particular interest because it represents an emphasis upon aspects of the problems which are somewhat novel. For the most part, of course, the type of work carried on in the two countries is very similar. As in recent meetings, considerable attention was given to investigation of mental tests. These brought out a variety of points of view, some critical and some appreciative. There were also a number of reports of the investigation of other educational problems, such as the growth of children, educational tests, or the report of children's concepts. One session was devoted to problems of the application of psychology to business. The address of the vice-president of Section I, Dr. E. K. Strong, Jr., dealt with the necessity and the means of control of propaganda. The vice-president of Section Q, Dr. Charles H. Judd, treated in his address the necessity of scientific procedure in the selection and organization of curriculum material, drawing his illustrations from the social studies.

## STAY-IN-SCHOOL DRIVE

Several civic organizations of New York City, co-operating with the superintendent of schools, conducted during January a "Stay-in-School Drive." The immediate purpose of the campaign was to acquaint parents and children with the unfortunate results of leaving the public schools as soon as the law allows, especially during the present industrial stagnation. In 1922, as contrasted with earlier years, more children are looking for jobs, fewer jobs are open to them, and wages are declining. It is especially difficult

for children under sixteen years of age to secure employment; particularly slight is the chance of those not graduates of high schools or trade schools. Moreover, the few jobs that may be obtained are of the blind-alley variety, leading to no future, causing young people to drift aimlessly from one employment to another, and finally reaching in their early twenties a state of incompetency.

By means of printed matter and public gatherings addressed by competent speakers, these features of juvenile employment were stressed. Another line of thought presented during the drive set forth the large variety of attractive features furnished by the High School of Commerce, the Julia Richmond High School, the Manhattan Trade School, and others. Special attention was called to the Haaren High School in which pupils may work their way, each pairing off with a comrade, being employed at regular wages one week and attending school the next. Moreover, the school employment agencies, through which pupils can secure work outside of school hours, were speeded up and widely advertised.

Finally, the schools themselves were subjected to thorough examination, on the ground that children leave because they do not *want* to stay. This dislike was attributed to "large classes, the lack of adequate equipment, the rigidity of overminutely prescribed courses of study, and the fatigue of overworked teachers." Agitation was continued for smaller classes, better grading, better-placed teachers, a full day's schooling, sanitary and better buildings, and for prevocational courses and continuation schools.

This comprehensive publicity program merits the heartiest approval. One feature, however, commonly used in such programs, is at the best very questionable. Apparently conspicuous publicity was given to the doubtful argument which runs as follows:

Education means money.

In Massachusetts the average person goes to school seven years; in Tennessee the average person goes to school three years. In Massachusetts the average income is \$200.00 per person; in Tennessee it is \$116.00.

In the United States as a whole the average college graduate earns \$2,000.00 a year, the average high-school graduate \$1,000.00, the average elementary-school graduate \$500.00.

Each day spent in high school is worth \$25.00 to each pupil; each day spent in college \$55.55. This is more than the average boy or girl can earn by leaving school and going to work.

Only one in a hundred of our people is a college graduate, yet 36 of every 100 congressmen have been college graduates, while 50 per cent of our presidents, 54 per cent of our vice-presidents, 69 per cent of our Supreme Court judges, and 87 per cent of our attorney-generals have had college degrees.

There is a book called *Who's Who in America*. This book contains the names of those persons who are well known because of their good works. The person who cannot read and write has one chance in 150,000 to get his name into this book; the grammar-school graduate one in 4,250; the high-school graduate one in 1,600; the college graduate one in 180; the honor student in college one in 3.

Does education pay?

IT DOES!

Without questioning the validity of the conclusion reached, that education does pay, or the desirability of all legitimate propaganda for it, it may not be out of place to protest against the obviously erroneous use of data and the false logic of the citation above. One recalls the argument made a few years since for equal suffrage: an imposing array of data to prove that suffrage states attained a very much higher per capita wealth than non-suffrage states. Great causes deserve more scrupulous advocates.

#### A NEWSPAPER FOR YOUNG READERS

An enterprise has been launched which merits the support of all who are concerned with children's reading. The *Junior News*, a *Newspaper for Junior Citizens*, Vol. I, No. 1, an incorporated newspaper, has appeared. The proposal is to issue an eight- or sixteen-page illustrated weekly newspaper, about one-third the page size of the ordinary dailies and closely following such publications in make-up and format. Florence Yoder Wilson is editor and publisher; the advisory council is headed by Professors Bonser and Bagley of Teachers College.

Already in the field are about eight weekly or monthly secular publications designed for children eight years old and upward, with modest subscription lists, some good, some indifferent, and all but one devoted largely to fiction. The *Junior News*, of a very different order, is intended to fill in America the place taken by the

*Children's Newspaper* of London, a twelve-page illustrated weekly, published by the Amalgamated Press, Ltd. That publication has now enjoyed about one hundred issues and is said to be an educational and financial success.

The *Junior News* will include weekly:

Two pages of current events of world and nation-wide significance.

One page of short news items concerning the activities of young people in other countries. (Illustrated.)

One page of short news items concerning the activities of young people at school in America, and concerning affairs which affect children directly.

One page of news featuring children who have already accomplished something worth while in life, or concerning grown persons whose lives could be an inspiration to young people. (Illustrated.)

One page of book news, touching upon both authors and books. (Illustrated.)

One page of news of the moving-picture world and the worlds of music, art, and the theater. (Illustrated.)

Two pictorial pages either of straight news, science, or invention.

One editorial page containing short editorials, letters from children or grown persons, and comment. (Illustrated.)

One page devoted to contests and a continued story.

Two pages of events in the world of science and invention covering geographical, historical, and like subjects. (Illustrated.)

Two pages of comics, light verse, jokes, and puzzles. (Illustrated.)

One page devoted to the promotion of interest in health and news of the world of sports.

NOTE: For an eight-page paper, with pages twice the size of the sixteen-page paper, the same program will be followed.

A weekly publication for children guaranteed to contain no crime, scandal, or rumor, that will present appropriate news and interesting fiction not rivaling dime novels, should receive a hearty welcome. This is especially significant in view of recent investigations which indicate that the food obtained by children from the adult press is almost exclusively objectionable. Three thousand children interviewed in three cities had without exception dwelt upon the latest national scandal. Eighty per cent had read it themselves, 10 per cent were told about it, and 10 per cent had heard it read aloud by their elders.

The subscription price of the *Junior News* is \$2.50 for one year. The address is 244 Madison Ave., New York City.

## THE CUM LAUDE SOCIETY

In view of the present interest in honorary societies for high schools, it seems worth while to describe briefly the best known of the existing organizations of this sort, especially as there have been several references to it recently in the pages of the *School Review*. It should be noted that the news item on "Competition among Honor Societies" in the December, 1921, issue was not directed against this organization. The Cum Laude Society does not pay one cent to any officer; and it is now giving to chapters and individual members more than it receives from them. No assessment of any sort is made upon the chapters; they are not called upon to pay for even the engrossing of their charters. In fact, the only charge upon anyone is the membership fee of two dollars, which is paid at the time of election. This fee does not cover the present cost of the certificate and the badge furnished the new member. That the Society is now able to have a balance-sheet showing expenditures in excess of receipts is due to the possession of considerable funds accumulated in its earlier years.

In the item mentioned, there is probably a reference to the Society, in these words: "Amalgamation seems to have lagged. Existing societies seem to be unwilling to give up their names and special characteristics." At any rate, certain persons are expressing great surprise that a society fifteen years old, with sixteen or seventeen hundred members and an established reputation, has refused to sink its identity in the undertaking to establish a new society of similar purpose. For over a year before the committee of the National Association of Secondary School Principals made its report on this subject at Atlantic City, the members of this committee were urged to avoid the multiplication of honorary societies; they were informed that the high schools could make of Cum Laude what they wished, if the Association would join it. The same considerations were presented at the meeting in which the committee's report came before the Association for action. If there are now two national honorary school societies, it is surely not the fault of the older of them.

There was a time when the high schools not unnaturally looked upon the Society with suspicion. Although its constitution put



"public high schools" first in providing for the establishment of chapters, no chapter had been established in a high school. Furthermore, the fact that the Society was not secret—not even, indeed, an organization of pupils—was obscured by its former name; so that many principals who were themselves correctly informed feared that anti-fraternity laws or regulations might be enforced against it or that the public would misunderstand. Finally, girls were not at first eligible to membership. All these provisions have been altered, and the changes were made for the express purpose of satisfying the high schools. This policy is now bearing fruit. Chapters have recently been established in several strong high schools; at the time of writing several others are applicants for charters.

The object of the Cum Laude Society is "the encouragement of high ideals of work in secondary schools"; its methods are similar to those of Phi Beta Kappa. In some schools election to membership has become an honor so highly esteemed that the desire to attain it affects the attitude of a considerable number of pupils. Only pupils of the highest class of the school are eligible to membership. No one below the first fifth of his class in scholarship may be chosen. Not more than a tenth may be elected at any time during the year, and the remainder at the end. In coeducational schools neither sex is allowed more than its proportionate representation. As members in course are not given a vote until a year after their election, the conduct of a chapter is within the control of its faculty members.

The Cum Laude Society, founded at the Tome School in 1906, incorporated under the laws of Maryland, has now thirty-four active chapters. Among the schools represented are Tome, Exeter, Andover, Worcester, Lawrenceville, Hill, Providence (Rhode Island) Classical High School, Choate, Milton, Watertown (Massachusetts) High School, and Louisville Male High School. The government of the Society rests with a general convention, which meets every third year, and a Board of Regents. The latter body has the power to establish new chapters. Correspondence should be addressed to the secretary-general, John C. Kirtland, Phillips Exeter Academy, Exeter, New Hampshire.

JOHN C. KIRTLAND

## **News Items from the School of Education of the University of Chicago**

### **SUMMER-QUARTER COURSES FOR SUPERINTENDENTS AND PRINCIPALS**

The Summer Quarter at the University of Chicago serves an increasingly large number of superintendents, principals, supervisors, and teachers each year. It is equivalent in length to a quarter of the regular academic year. It is broader in scope, a larger number of courses, both academic and professional, being given than in any other quarter. In order to accommodate students who cannot attend the entire summer, the quarter is divided into two terms. The first term begins Monday, June 19, and closes Wednesday, July 26; the second term begins Thursday, July 28, and closes Friday, September 1.

During recent years, the responsibilities of administrators and supervisors have become so numerous and complex that superintendents and principals are confronted with a large number of highly specialized and technical problems. Instead of giving the problems which confront them equal attention, school officers attack one problem after another during the course of a year, such as the budget, the curriculum, the selection of textbooks, the use of tests, and the improvement of teaching. In attempting to solve these problems, technical information and scientific methods are needed to supplement earlier professional training. In arranging the extensive program of courses which will be given in the School of Education during the Summer Quarter of 1922, these needs of superintendents, principals, and supervisors have been carefully considered.

The following courses suggest a few of the opportunities for the intensive study of particular problems which have been provided:

An Introductory Survey Course in Administration, Professor J. B. Edmonson.

Constitutional and Legal Basis of Public-School Administration, Mr. I. N. Edwards.

Financial Organization and Administration, Dr. Carter Alexander.

The School Population, Superintendent J. M. Gwinn and Superintendent James H. Van Sickle.

The Organization and Supervision of the Teaching Staff, Superintendent E. E. Lewis.

The Administration and Supervision of High Schools, Principal W. C. Reavis and Professor George S. Counts.

The Problem of the High-School Girl, Miss Elsie M. Smithies.

The Junior High School, Superintendent E. E. Lewis.

The Administration and Supervision of Public Schools, Superintendent J. M. Gwinn and Superintendent James H. Van Sickle.

The Curriculum, Dr. J. F. Bobbitt.

Industrial Education, Assistant Professor Emery T. Filbey.

Vocational Guidance, Assistant Professor Reed.

The Psychology of Elementary and Secondary Education, Professor Charles H. Judd.

The Psychology and Treatment of Exceptional Children, Assistant Professor Guy T. Buswell.

Psychopathic, Retarded, and Mentally Defective Children, Dr. Clara Schmitt.

Statistical Methods, Mr. Karl J. Holzinger.

Mental Tests, Professor F. N. Freeman.

The Use of Tests in Improving Elementary Instruction in Elementary and High Schools, Principal E. George Payne, Assistant Superintendent A. S. Barr, and Principal W. C. Reavis.

Methods of Teaching in High Schools (advanced course), Professor S. Chester Parker.

General Technique of Instruction in Elementary and High Schools, Professor H. C. Morrison.

The Criticism and Supervision of Instruction in Elementary Schools, President J. C. Brown.

Bulletins of the Summer Quarter may be secured by addressing the Mailing Department, University of Chicago.

## OPPORTUNITIES FOR CORRELATION BETWEEN COMMUNITY LIFE AND ENGLISH. III<sup>\*</sup>

HOWARD C. HILL

University High School, University of Chicago

*Motivation in composition work.*—Why do boys and girls dislike composition? That many of them do, will hardly be questioned. That it is an unnatural attitude is obvious, for under ordinary circumstances the desire for self-expression is almost as universal as the desire for play. After a hard football game or an exciting tennis match, all normal boys like to "talk it over"; whoever saw a girl who did not like to chat about a party or an amusing play? The situation in the case of oral or written composition in school is quite a different matter, for with many pupils the preparation of a talk or the writing of a theme is a dreary and distasteful task. Why this dislike?

Among the various causes which may explain this attitude there are two which seem of outstanding importance. The first of these is the feeling on the part of many boys and girls that they have nothing which they care to talk or write about. If thrown on their own resources for the choice of a topic, they frequently find that their minds are blank or that they can think of nothing but commonplace trivialities on worked-out subjects. Oftentimes they find the situation no better when topics are suggested by the teacher. Painstaking pupils have been known to spend hours either trying to find a topic to write about or trying to write about a topic concerning which they were uninformed.

Another feature which helps to explain the distaste for formal composition felt by many boys and girls is the impression, sometimes well founded, that neither their classmates nor their teachers

<sup>\*</sup> The two preceding articles described the administration and organization of a combination course in community-life English and discussed the work from the standpoint of reading or literature.

are really interested in what they write or say. Whenever this idea is held, work in composition necessarily appears artificial and in the nature of a school task which is to be done—so the pupil reasons—only because it is required. Work in oral and written expression which arouses enthusiasm must have a different motive behind it. We write letters to our friends on the assumption that we have something to tell them and that they will be glad to read what we write; the newspaper reporter who prepares a description of a fire or a wreck believes that people will read his account with interest; a lecturer or a preacher plans his address for an audience. True expression, in short, always has a social purpose and grows out of a genuine audience situation.

If this analysis is correct, it would seem to follow that the pupils' interest in oral and written expression requires, first, that they be given topics to talk and write about in which they are interested and, second, that the work be so arranged as to provide an audience situation. This would necessitate a selection of topics which concern all pupils, for anything which concerns a person, which appeals to him, which affects his welfare, is likely to be of interest to him. It would necessitate also the planning of the work so as to enable pupils not only to make real contributions to the class but to know that they are making such contributions.

It is upon these ideas that the procedure in expression in the combination course in English and social science in the laboratory schools of the University of Chicago is based, for, as stated in the first article of this series, the aim of the course from this standpoint is to stimulate boys and girls to clear, fluent, and effective expression in both oral and written composition.

*Suitability of social-science topics for composition purposes.*—In the light of the foregoing discussion let us examine briefly the topics included in the course from the point of view of their suitability for composition purposes. It is apparent that these topics all deal with matters which are of concern to boys and girls, although they may not at first realize it. In addition, they all relate to things with which pupils have had some experience. For example, boys and girls, like older people, are dependent upon others for much that makes life worth while. With few exceptions, they have

lived since birth as members of families. Usually, from the age of six on, they have spent a large portion of their time in school. While they may not have joined a church, most of them have at some time come under its influence in the Sunday school or in connection with its other activities. All their lives they have been members of a community, sharing its opportunities and affected by its problems. By the time they reach junior high school age, some of them have come into direct contact with the world of work, and most of them have begun to think about an occupation. Even in the realm of government they have usually had some experience, although this experience may be limited to the use of the streets and the parks, to the handling of postage stamps and money, or to the seeing of firemen and street cleaners at their accustomed tasks. Since community-life English is composed of topics which are not only of concern to the pupils but more or less related to their experience, it would seem to follow that the material of the course is well suited for composition purposes.

It is obvious, however, that the teacher must bring out the significance of much of this material by questions, illustrations, and class discussions before many of the pupils will realize its relation to them and be aware of the fact that they, too, have something they would like to say or write. For example, the teacher, in taking up the first topic in the course, "Myself and Others," may proceed by calling the attention of the class, first, to the ways in which people in the city are dependent upon people outside the city for food, fuel, and raw materials from which to make articles; second, to the manner in which people in the country must, in turn, depend upon people in the city for phonographs and pianos, plows and harvesting machinery, wagons and automobiles; third, to the ways in which countries depend upon one another, as, for example, England upon Ireland for dairy products and Ireland upon England for manufactured goods. After such an exercise it is easy to turn the thoughts of the pupils to the ways in which the same interdependence appears in the lives of all the members of the class. A suggestion at this time that pupils write short compositions, showing how they depend on others or how others depend on them, finds their minds alert and active on a subject which most of

them have never consciously realized before. The following compositions<sup>1</sup> resulted from such an exercise.

#### THE DEPENDENCE OF THE HUMAN RACE

One cold winter's morning, when the maid came in to close the windows and turn on the radiator, we found, to my great disgust, that the heat would not come up. Then I began to wonder what I should do if I had no one to wait on me and make things for me. I was astounded at my great dependence on others. For instance, just taking the things in my room, there was the very bed in which I was lying. What would I have done if there had been no men to make it? Then, there were the rugs, tables, chairs, lights, and thousands of other little things. Then I thought of food. I was dependent on others in this case, too. For breakfast I generally had a glass of milk, some toast, and peach marmalade. If it had not been for the men in the dairies I would have had no milk; for the bread, I depended on the cook to make it, of course, but behind her there were the farmers who had raised the grain from which we got the flour, the men who got the salt wherever it came from, and all of the things which go into the making of bread, even the men who had made it possible to have the gas with . . . "Katherine, get up this minute," said mother from across the hall—and I did.

#### A GOLD FILLING

Before our discussion in class, I little thought of how dependent we all are on many classes of people. When one goes to the dentist for a gold filling, it is not natural to think of a man shoveling sand into a wheelbarrow, or the manager of a bee farm, as being connected in any way with the filling, but if either of these men refused to do his part, a gold filling could not be obtained.

The story of a gold filling begins in a gold mine. Here we depend upon the miner and, before that, upon the men who discovered a way to get the gold, perhaps after years of effort. From the mine the gold, mixed with rock, is loaded on to a railroad, where the railroad engineers are indispensable.

Next the gold must be separated from the rock. When all foreign material is removed, skilled workmen shape it into bars. The last part of the preparation comes when the dentist shapes it into the correct form. He could not do this if it were not for the manager of a bee farm, already mentioned, as the filling is made with the aid of a wax cast.

A great many men are involved in the transportation of the metal. From the mine it passes through the hands of railroad men. Shippers convey it to the city where it is to be used. Auto drivers take it to the dealer and, later, carry it to the dentist himself.

It is at the period when the filling is actually put into the tooth that we depend on the man who shovels sand, as without the aid of a looking-glass, it

<sup>1</sup> The items reproduced in this article have been slightly edited by way of omissions and the correction of mechanical errors; otherwise, they stand substantially as written by the pupils.



would be impossible to get the filling in the proper place, and sand is the raw material for glass.

In this way it is seen how many men are involved in the "simple" life of a gold filling.

#### HOW OTHERS DEPEND ON ME

At first when I was wondering if any one really depended upon me I thought they did not. But afterward I found that some do. Our school depends on me for my part of good school spirit, for good studying, and for good behavior around school. Our household depends upon me for co-operation in its work. My mother, who is a writer of children's books, depends upon me to a certain extent for inspiration. My home depends upon me for making some of its happiness. So I find that really the school, our household, and my mother depend upon me.

*Creating an audience situation for oral expression.*—The extensive reading which pupils do in the community-life course makes it relatively easy to provide a real audience situation for a considerable part of the work in oral and written expression. The "floor-talk," which was referred to in the preceding article as one of the means employed to check the reading of pupils, will illustrate this point. After the pupils have been working along a certain line for a week or ten days, they are asked to select some phase of the topic in which they are especially interested or something which impressed them in their reading as the subject for a talk to be given a few days later before the class. These talks vary in length from two to fifteen minutes; in general, there is greater difficulty in keeping pupils within reasonable bounds than in stimulating them to talk long enough.

When the pupils have selected their subjects they are sometimes asked to hand them in, together with their names, on small cards. Usually the wide reading results in such a diversity of topics that each pupil knows that he can make a real contribution to the class. This results in enthusiasm on his part and in attention on the part of the class which are difficult to secure when a pupil gives his classmates merely a rehash of what they already know. When there is a duplication of topics, the pupils concerned are asked to confer and arrange matters so that no two will present the same phase of the subject. This arrangement they are eager to make, for they are quick to sense the value of the audience situation.

Another way of taking advantage of the wide reading of the pupils, and at the same time of providing a genuine audience situa-

tion for oral expression, is to vary the procedure just described by having the class co-operate in the preparation of a "program" of floor talks. As suggestions of interesting phases of the topic suitable for this purpose are made, they are written on the black-board, criticized by the pupils, improved in phraseology, and grouped under appropriate headings. Each pupil then volunteers to take one of the subtopics as the subject of his talk. The following is a program of the floor-talks which were given in connection with the topic "The School."

I. Education in other days

1. The school life of animals
2. The education of the Spartans
3. School days in ancient Athens
4. Education in ancient Rome
5. Schools of the Middle Ages
6. The education of a knight
7. The education of an Indian boy
8. Schools in colonial days
9. Schools in America one hundred years ago
10. The Hoosier School Boy
11. My grandfather's experience as a school teacher at sixteen
12. When my mother went to school

II. Schools of other countries

1. School life in Norway
2. My school life in Germany
3. French schools of today
4. Schools in China
5. Russian schools
6. School life in Winchester, England
7. School life in Rugby
8. My grandfather's school life in Prague

III. Education of famous persons

1. Socrates, the teacher
2. Education of Plato
3. Education of a famous artist—Rosa Bonheur
4. Comparison of the education of Lincoln and Roosevelt
5. Education of Booker T. Washington
6. Education of Helen Keller
7. Formal education of Woodrow Wilson
8. The education of Herbert Hoover
9. Education of the Kaiser

## IV. Other schools that I have known

1. My experience in a country school
2. A negro school I visited in the South
3. The military school I went to
4. The Ray School (a comparison with University High School)
5. What our school gives me that another did not
6. My days in a public school

## V. Educational opportunities in our own city and country

1. The Belmont School
2. The Gary schools
3. Educational opportunities in Maryland
4. The junior republic
5. Educational opportunities in Chicago
6. Interesting features of our own school
7. Schools of the future

*Variety in written compositions.*—That social-science material affords opportunity for wide variety in oral expression is evident from the foregoing list of subjects for talks. A similar result appears in the written compositions. As an illustration of the variety which occurs in content even when pupils write upon the same subject, the following themes have interest. The first and third were written by boys.

## MY IDEAL FAMILY

Mother, may I do this and may I do that, all day long from seven to twelve children, is not my ideal of a human family. In this arrangement no child receives enough attention but is constantly drifting away from care and responsibility. The children may receive enough food and clothing, but it is almost impossible to lead a normal comfortable life with half a dozen or more children tagging around all day. The mother becomes irritable and cross, and with a cross mother not much can be done. The father after a hard day's work doesn't wish to come home to find an upset, unnormal household; and if he does, he becomes irritable also.

My ideal family is one where there are from two to five children and a kind, hard-working father and mother. "Hard-working" does not mean drudgery all day but something useful that's being done. The mother should not bear the brunt of the work, for the majority of it should be done by the father. The children should be helpful and kind and go to school regularly. The mother and father ought to be congenial with each other and endeavor to bring up the children in the best way possible together.

## MY IDEAL HOME

It was a bitter cold February night. The wind whistled and howled around the corners in relentless fury. The very tree tops groaned in the gale.

But in our little living-room all was warm and cozy. The fire roaring in the grate sent its flickering shadows over the room where Mother sat knitting, the rhythmic click of her needles keeping time to Dad's gentle breathing as he sat dozing over the evening paper. From the corner, where sister was reading *Polly's Adventures at Boarding School*, came an occasional chuckle or sigh. And I sat gazing dreamily into the fire, trying to visualize my ideal home.

I built a little bungalow in the dancing flames, but it was rejected for something more inviting. I built and rejected many homes in the four corners of the earth and finally decided upon a stately mansion among the swaying palms. But it seemed so forbidding that I looked around with a contented sigh on our cozy little room. And I suddenly realized that what I had been travelling all over the world for, in imagination, was right in that very room. After all, what difference did it make where we lived as long as we were all together? And though many people before me had found this out, I had just discovered for myself that an ideal home is anywhere, be it north, south east, or west, where one's loved ones may be together.

#### MY IDEA OF AN IDEAL FAMILY

The father of this family is a tall man, six feet in his stocking feet and is well filled out. He doesn't smoke or chew, and when he comes home at night he is not grouchy if business was not good.

The mother is five feet ten inches and rather slim. She isn't given much to going out and is rather a home body. She cooks fine meals and makes fine mince pie. She goes to a show downtown about once every two months and belongs to the Red Cross.

The boy is in his teens and takes after his father in height and mother in weight. He copies his father in everything he does. The girl is about four feet ten inches and is a smaller model of her mother. She obeys her father and mother and, most of the time, her older brother.

Their home life is ideal because there is nothing thrown or any tongue fights and there are not any weeks of sullen silence between the parents.

*Social-science content and argumentation.*—But is the material which forms the core of the community-life course suited for forms of composition other than exposition and description? Teachers of English will naturally consider this question of vital importance in evaluating social-science content for purposes of instruction in expression. In answer, it is, of course, only necessary to point out that, with rare exceptions, the questions which are debated in school and college all fall within the realm of the social sciences. As might be anticipated, therefore, oral expression in the form of debate forms an important part of the work in the community-

life classes. Among the questions which have been debated are the following:

*Resolved*, that foreign unskilled laborers should not be allowed to enter the United States during the next ten years.

*Resolved*, that motion-picture theaters as now conducted do more harm than good to the community.

*Resolved*, that in all occupations in which it can be applied, wages should be based on piece work rather than on hours of toil.

*Resolved*, that a tribunal similar to the Kansas Industrial Court should be established in Illinois.

*Social-science content and imaginative literature.*—Social-science material, as represented by the topics in the course under discussion, has also proved its value for the writing of short stories, poems, and plays. There seems, in fact, to be no form of literary expression to which this material is not adapted. This is, of course, what might be expected, for the social sciences deal with life, and what is literature but a reflection of life? That this truth is realized by some pupils is apparent from the following answer, quoted only in part, which one of the girls gave to the question, Is "community life" properly classified as a course in English?

"Literature is a reflection of life," said Bacon in one of his essays; and the world since then has accepted his statement as one of the truest ever made.

The literature of a nation, its writings, the thoughts of its people expressed in words, must, of necessity, mirror the surroundings and life of the nation, even if that is not the main theme. An illustration of this is O. Henry's works. O. Henry's stories simply radiate modern life, yet nowhere, in any of his writings, can a lengthy dissertation on modern life be found. The actions, thoughts, and descriptions of his characters and their problems furnish all the necessary material.

This is true not only of prose, but also of poetry and drama. Shakespeare's plays picture the luxurious ease of the high-born subjects of "Good Queen Bess" and their extravagance of emotion which is "at once passionate and artificial"; in a similar way—to go to the other extreme—Sandburg's "Chicago" pictures the roaring, hustling city of might which is, as he expresses it, "proud to be chief hog butcher of the nations."

Since knowledge of literature is one of the main reasons for the teaching of English and literature is a reflection of life, then, because all civilized people live their lives in communities, "community life" should be classified as English.

If the writings of individuals reflect the life of their times, they should learn all about their communities, so that they may represent life more clearly. This information is furnished in "community life." In a narrow sense, English includes only the principles of grammar and a study of literature; but if the statement, "Literature is a reflection of life," is true, this gives English a much wider field, and "community life" should certainly be classified under it.

An idea of the degree to which social-science material is adapted to the various forms of literary expression may be obtained from the following work of the pupils. In some instances the limitations of space have made it impossible to reproduce the entire composition. In each case the topic, in connection with which the theme was written, is given.

#### THE SCHOOL: MY IDEAL TEACHER

My ideal for a teacher is very high because the teacher is the model for the students to copy. If the model is wrong, the things copied from it will be wrong. I think that first an ideal teacher must have a good education, for education makes high ideals and culture. Also, the teacher should learn not only the subjects he is to teach but how to teach well. The next thing necessary is enthusiasm. He or she must be careful to keep out of a rut, to keep wide-awake and alive, getting new ideas and giving them to the pupils.

Of course, there are certain characteristics necessary for an ideal teacher such as patience, co-operation, humor. By patience, I don't mean just enduring on the part of the teacher, but scolding when it will help the student and not when it will relieve the teacher's feelings. By co-operation, I mean the ability of the teacher to make the students feel that they are working together on an equal basis to gain the same end, knowledge. Humor helps the spirit of co-operation and brightens school work. Another thing I think important is the teacher's dress. It is one of the best ways to teach good taste to students. It is a practical application of culture.

It is very hard, of course, to explain that something way down inside that makes a good teacher, but I think if you add the right kind of education, enthusiasm, patience, co-operation, humor, good taste, or culture, together you will have, as near as I can explain it, an ideal teacher.

#### IMMIGRATION: WHAT AMERICA MEANS TO SOME PEOPLE

##### *Cast*

Mother	Boy, fifteen years old
Father	Girl, thirteen years old
Neighbors	Girl, seven years old
Messenger	

## Scene I. Peasant House in Russia

*(Four o'clock in the morning. Family bustling around in the dingy kitchen. Mother packing. Father has gone out. Boy and older girl getting breakfast. Youngest child is still in bed.)*

*Boy:* Oh mother, think, only three more days before we leave for America!

*Older girl:* Won't it be a wonderful place? It seems as though far-off America is nothing but a dream. Who could realize where we shall be in two months?

*Mother:* Yes, children, America is a wonderful place, but think of the friends you are leaving behind you.

*Older girl:* Oh, mother, don't remind us of that. It is so hard to leave one's friends.

*(Youngest child enters)*

*Youngest child:* Mama, how many days before we start for America?

*Mother:* Three days, dear.

*Youngest child:* Let's go now.

*Mother:* We are too busy getting ready to leave now. When everything is ready we will go. Run down to the store now and get me some thread to fix this carpet bag. . . .

## RECREATION: SEA SHELLS

Upon the beach there lay a pile of shells,  
Gathered by childish hands in happy play;  
Within their fragile spirals, rose and gray,  
Rings e'er the echo of sweet far-off bells.

The waves dash high and hard upon the beach  
And slide back foaming o'er the well-washed sands;  
But though they snatch with eager, angry hands,  
The shells are ever far beyond their reach.

'Tis thus in life. The storms of every day,  
The chaos and the toil of worldly race,  
Not these, nor any sorrow can efface  
The happy memory of childhood's play.

## INDUSTRY: THE TALE OF THAND, THE WEAVER

Far off in the land of Angolan is a beautiful shrine, all made of fretted gold and studded with diamonds and rubies; and in this shrine is a tiny golden loom, a magic loom, which spins cloth-of-gold alone, and which is sacred to the god of all the weavers—Siga.

The loom is kept so bright that the land of Angolan is called Tithra—which means "two suns"—because the rays of the stars reflected on the loom make the land as bright at night as when the desert sun shines on the burnished sands at midday. Small wonder, then, that the people of Angolan guard it



jealously, and still offer sacrifices to the god Siga, although he has not moved from the temple for a thousand and three years.

Now it befell, either by chance or some decree of the gods, that the tale of the golden loom was learned by Thand, chief weaver of Zist, a land as far removed from Angolan as the north star is from the moon. . . .

*Community life and intellectual interest.*—One of the most encouraging features of the course, which can be only mentioned in bringing this article to a close, is the extent to which the work seems adapted to awaken or stimulate intellectual interest. This interest is shown sometimes by the extensive reading which a pupil does on a given topic. At other times it appears in a diligent search for material not on the book list which deals with a phase of the subject which has awakened curiosity; an instance of this was the investigation by one of the girls of all the literature she could find in the general library of the University of Chicago on "The Sports and Fêtes of Japanese Children," an investigation which culminated in the writing of an eighteen-page paper on the subject, artistically illustrated with pen-and-ink drawings of her own making. Again, it has been indicated by a series of compositions, usually of the pupil's own devising, dealing with a certain line of study. One boy, for example, became so much interested in a study of the motion-picture industry that he wrote three extensive papers on the subject. These papers, which totaled seventy-three pages, were entitled "The Motion-Picture Industry," "Trick Movies," and "The Morals of the Movies"; they were illustrated with drawings showing the mechanism of the cinematograph, appropriate pictures and clippings from newspapers and magazines, and portions of films. Another boy became equally enthusiastic about the steel industry and prepared a series of worthwhile papers on the subject, carefully illustrated with drawings, clippings, and pictures.

The evidence, then, seems to indicate that a combination course in English and social science of the sort described is productive of genuine intellectual interest; of extensive and purposeful reading in worthy literature; and of clear and fluent expression in both oral and written composition. Its utility as a means of civic education has come only incidentally within the scope of these articles.

## DEMOCRACY IN HIGH-SCHOOL GOVERNMENT

FLOYD S. HAYDEN

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It is the purpose of this article to explain the gradual development during the last seven years of a form of student-faculty co-operative government in Citrus Union High School. The school is located in a semirural community in the foothill Citrus belt east of Los Angeles. During the period with which this report is concerned, the enrolment of the school has grown from approximately one hundred to three hundred students, and junior-college, night-school, and various lines of vocational work have been added.

The school originally had class and student-body organizations with no special objective in view. The interests of the several groups were at such variance that sometimes loyalty to the school was superseded by class or group loyalty. The first task of the school in creating a co-operative spirit among the different group organizations was to develop a kind of superloyalty to the interests of the school as a whole. Athletic, debating, oratorical, and musical contests made a strong appeal to the students, and it was soon realized that in order to win in these contests a united school spirit must be maintained. With this end in view, a Welfare Committee was organized, consisting originally of the four class presidents, the student-body president, and the principal.

The year before the committee began its work, class spirit had run high, manifesting itself in class fights which frequently resulted in injury to school property. The High-School Board joined in the co-operative plan of school improvement and through the Welfare Committee made announcement that if the classes would refrain from class fights and devote their energies to interclass and interschool athletic contests, the board would put \$250 into athletic equipment, an amount equal to that spent the previous year in the repair of damaged school property. This met with unanimous

approval on the part of the students, and the trustees purchased the equipment. Interest in school activities increased, and the students found themselves beginning to work as a unit.

Another situation which confronted the Welfare Committee was the established custom of ducking the entering Freshmen. The Sophomores were the active participants, but the upper-class students spurred the younger students on. Even the High-School Board despaired of curbing the evil, which had several times resulted in personal injury to students. However, the Welfare Committee attacked the problem, and the second year the upper-class students placed certain limitations on the ducking which eliminated its more serious aspects. The third year the upper-class leaders met the Sophomore leaders and told them that they had taken a new view of the matter, namely, that the Freshmen were new citizens coming into their democracy and that it behooved them to welcome them with the same methods used by the best democracies. A committee of Sophomores waited on the principal in his office and asked his opinion. He told them that he himself had been a newcomer to their community a couple of years before and that, even though there was a convenient pool and fountain in front of the public library, he had not been ducked. On the contrary, he had been welcomed by a committee from the Chamber of Commerce and also a committee from the church and made to feel, by the citizens of the community, that he was one of them, entitled to all the enjoyments and privileges of their democratic community. The committee saw the matter in its broader light, and the Sophomore class of that year had the honor of freeing the school democracy from a custom that was working contrary to its best interests.

The Welfare Committee had proved its worth. It had become the nucleus of a co-operative student-faculty government emphasizing spirit more than form. The machinery of the committee has been added to from time to time, but the spirit of our school democracy has ever been held as essential for the operation of any form of government. Edmund Burke tried to bring before the English Parliament the vision of a "true democracy growing out of the nature and condition of things." We have tried to realize

that we are living in a school surrounded by real problems and that we as students and faculty are co-operatively responsible for the solution of these problems and the establishment of ideals in athletics, society, and scholarship.

As the size of the Welfare Committee grew, the idea was to make it more representative of the entire student body and faculty. First, the faculty representation was increased to five. Besides the principal, the girls' adviser, the boys' adviser, and two other teachers active in the social, athletic, or dramatic life of the school were included. The junior-college class president was then added to give representation to that body. The girls of the school were as yet without direct representation, unless some class or the student body chose a girl for president. About three years ago, however, a girls' league was organized in the school and the officers of the league, president, vice-president, secretary, and treasurer, were added to the Welfare Committee. This plan had one defect, however. The constitution of the girls' league required the officers to be chosen from the two upper classes, and the Freshmen and Sophomore girls were still without direct representation. A plan was then adopted of electing four additional members, one from each class, and in case the majority of representatives from a class were boys this representative was to be a girl or vice versa.

The name of the body was then changed from Welfare Committee to Welfare Council. A brief constitution was adopted in order to keep before the students the objective of the welfare body. It is not the purpose of this body to usurp any of the rights or privileges of the various classes, the athletic committee, the study clubs, or the student body. It is a council to consider problems vitally related to the welfare of the school. It aims to unify and harmonize the various departments of school life, to consider the moral and social problems of the school, to create and maintain scholastic and moral standards in the school, and, above all, to create a vital, wholesome school spirit, in the atmosphere of which every school activity can work with ease and freedom.

At the beginning of the school year a dinner is usually served to the Welfare Council in the principal's home, followed by after-dinner talks on school policies. Plans are formulated for the year

with a view to school betterment. Last year the council set as one of its goals the securing of good assembly talent. An initial fund of \$225 was raised and such talent secured as Arthur Katchel in "The Music Master" and Miss Ruth Hutchinson, soloist, from the University of California Extension Division.

Another aim of the school last year as crystallized by the Welfare Council was the improvement of scholarship. Parallel with the introduction of supervised study, the student body initiated a system of scholarship awards, and at the close of the year fourteen scholarship pins and two debating pins were presented on commencement evening to honor students by the president

TABLE I  
PERCENTAGE DISTRIBUTION OF CLASS GRADES UNDER THE STUDY-HALL PLAN,  
FIRST QUARTER, 1919-20

	Freshmen	Sophomores	Juniors	Seniors
Recommended marks:				
A.....	23	23	30	25
Br*.....	28	27	40	29
Total.....	51	50	70	54
Marks below recommendation:				
B.....	21	23	15	22
C.....	13	14	10	8
D+.....	11	6	4	15
D.....	4	7	1	1
Total.....	49	50	30	46

\* Br=85 per cent, university recommendation mark.

of the High-School Board. The principal made a comparative study of the school grades of the year before and the year after the introduction of the supervised-study plan with its new co-operative scholarship incentives. These records are shown in Tables I and II.

Table III shows the improvement of the respective classes under the plan of supervised study and scholarship awards over their record of the year before under the old plan. The Freshmen, however, have no record with which to compare their 1920-21 marks except that of the preceding Freshmen, now Sophomores; hence the percentage of recommended marks of the present Sophomore class is used twice in the table.

There will never come a time when the council does not have a "real job" before it. Such a condition does not exist in our larger democracies unless the state is blind to its real needs. The writer once asked the superintendent of a George Junior Republic what the greatest problem was within the republic and he replied, "The same problem that you have in the larger world republic, namely, to keep the government in the hands of the best people

TABLE II

PERCENTAGE DISTRIBUTION OF CLASS GRADES UNDER THE SUPERVISED-STUDY PLAN,  
FIRST QUARTER, 1920-21

	Freshmen	Sophomores	Juniors	Seniors
Recommended marks:				
A.....	34	30	25	55
Br*.....	33	35	35	28
Total.....	67	65	60	83
Marks below recommendation:				
B.....	14	21	21	12
C.....	14	12	14	2.25
D+.....	3	1	3	2.25
D.....	2	1	2	0.5
Total.....	33	35	40	17

\* Br=85 per cent, university recommendation mark.

TABLE III

PERCENTAGE DISTRIBUTION OF RECOMMENDED MARKS, 1919-20 AND 1920-21

	Freshmen	Sophomores	Juniors	Seniors
1919-20.....	51	51	50	70
1920-21.....	67	65	60	83

and to foster a wholesome spirit of democracy." It is the aim of the Welfare Council of Citrus to be ever awake to the real situations in the school and to foster and develop by means of co-operative policies a school spirit that will be an inspiration to every student in the school.

#### CONSTITUTION OF THE WELFARE COUNCIL OF THE CITRUS UNION HIGH SCHOOL

##### ARTICLE I. PURPOSE AND NAME

In order to promote the highest type of relationship between different student organizations and faculty, to foster a desire for the best school order,

to develop a loyalty to Citrus and to all her activities, and to promote the general welfare of the school, this constitution establishing the Student Welfare Council has been adopted by the present student council and faculty committee.

#### ARTICLE II. FORM OF ORGANIZATION

The Student Welfare Council shall consist of student members from different student organizations, four faculty members appointed by the principal, and the principal.

#### ARTICLE III. MEMBERSHIP

SECTION 1. All class presidents, the student-body president and secretary, the girls' league officers, the junior-college class president, four appointed faculty members, and the principal shall be members of the council.

SEC. 2. There shall be four other members elected, one from each class, at the time of the regular class elections. In case the representative from a particular class is a boy, the representative chosen at large shall be a girl, or vice versa. Or if a majority of members from a certain class, as from the Senior class, for instance, are boys, the representative chosen at large shall be a girl, or vice versa.

#### ARTICLE IV. OFFICERS

The officers of this council shall be a president and a secretary. The student-body president shall be president of the council, and the student-body secretary shall be secretary of the council.

#### ARTICLE V. TERM OF OFFICE

The council shall be organized as soon after class and student-body elections as the principal and the student-body president may deem expedient. Membership in the council shall be for the period of a school year.

#### ARTICLE VI. AMENDMENT

SECTION 1. This constitution may be amended by a two-thirds vote of the council and the approval of the principal.

SEC. 2. A proposed amendment must be on the table one week before final action on it may be taken.

#### ARTICLE VII. RULES OF PROCEDURE

The student council representatives shall have power to adopt by-laws and rules of procedure.



## THE VALUE OF BOOKS RECOMMENDED FOR HIGH-SCHOOL STUDENTS IN WIDENING THE GEOGRAPHICAL HORIZON

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In discussing the purposes of literature teaching, the Committee on the Reorganization of English in Secondary Schools mentions the value of taking the pupil out of his own local group, out of his small environment limited as to time and place, and showing to him the world with its actors both past and present. In short, one purpose, as discussed there, is to widen the geographical and historical horizon. As stated in the report of this committee, the following is one of the special purposes of literature:

To broaden the mental experience by supplying a sympathetic acquaintance with scenes in various geographical sections, and with historical periods of the world. This has two distinct values: (1) Psychologically it forms centers of apperception about which fresh facts will tend to gather in the future, the process being vitalized by the human interest attaching to the central historical or fictional figures; and (2) by the presentation of persons acting in accordance with the demands of conditions new to the pupil, an attack is made early in the educative process upon the tendency toward a merely local or provincial outlook upon life.

The purpose of the present investigation was to find out the extent to which the books recommended by English departments in high schools are satisfactory tools for the realization of the aim as just stated. This paper concerns itself only with the first part of the aim; that is, the broadening of "the mental experience by supplying a sympathetic acquaintance with scenes in various geographical sections."

Broadening the geographical horizon is, in the light of modern interpretation of the objectives of education, surely a sound and necessary aim for the reading work. We have reached a period in the development of civilization where, through the perfection of

mechanical devices, distance on the globe has become a negligible quantity. We know tonight what happened anywhere in the world this morning. We can get to that point in a comparatively short time. We are no longer a provincial group cut off from communication with our fellow-beings in other parts of the world. We are talking about national brotherhood and world peace; but world-brotherhood, peace, and friendship are impossible without understanding and complete knowledge. If we had unlimited time and means at our disposal, if we had many lives to live, we could live for a time with all the different groups of the world. Then we might be said to know them, and then we could feel the real tie of brotherhood.

However, actual participation in the lives of various peoples of the earth is impossible, but vicarious participation is certainly within our reach. Through books and reading we may live where and among the peoples we please. It is the best means we have of going beyond our home environment. Mrs. Stowe thought it might be interesting and instructive for people to live the life of the southern slave, so she wrote *Uncle Tom's Cabin*. For the few hours it takes to read it, and ever afterward at will, one can live the life of Uncle Tom and his slave brothers. As we read or think of the *Call of the Wild*, *Captains Courageous*, or *Kim* we find our understanding and sympathy extended to include the environment.

Since this is true, the kind of books recommended for reading in high schools is tremendously important. High-school students should develop a feeling of large group consciousness, of social oneness, of international brotherhood, and the best means of doing this is to broaden the geographical horizon through the reading of books portraying all of the different parts of the globe.

In order to find out just what the high-school students of the country were reading and to what extent the reading matter actually broadened the horizon, thirty-five reading lists and courses of study were collected from prominent and representative high schools in all sections of the United States. One composite list was made of every book mentioned in the thirty-five lists, with its frequency of occurrence. This list had a total of 4,025 different books.

All books having a frequency of fifteen or more were listed separately. This resulted in a list of ninety-seven books very generally read in the high schools of the United States. These were studied carefully for geographical material.

Nine of the ninety-seven books had no geographical significance at all. Forty of them pictured the United States, twenty-six England, five France, four Canada, three Scotland, two Italy, and two Palestine. One book of travel furnished brief glimpses of Europe. Alaska, Germany, India, Persia, and Spain each had one book respectively, while Ireland, Sweden, Russia, Japan, and China, to mention only a few of the omissions, were not revealed at all.

A summary glance at the places included in the ninety-seven most frequently mentioned books leads to the conclusion that they picture the United States adequately, England rather completely, Scotland fairly well, France fairly well, and Palestine reasonably well. India is described very well in the one book that pictures it, but the proportion of books devoted to it is not sufficiently large. There is too great a chance with only one book concerning a country that that one book will not be chosen, and hence the pupil will remain unacquainted with the region described by it. Frequency, other things being equal, should probably be in proportion to the geographical importance of the country.

Other countries are not pictured at all, or they are very inadequately pictured.

Nearly one-half of the books are books with an American background, and nearly one-third of the books picture England. Other countries receive a very meager treatment or are omitted altogether. This indicates the fostering of a provincial, small-group attitude. It suggests that while we talk of the development of cosmopolitanism, of world-group consciousness, we are really cheating ourselves. We like to think we are developing a wider outlook, and the statement of one aim is devoted to it in the course of study for English, but the books which are commonly recommended are not chosen with the accomplishment of that end in view.

On account of limited space a summary only will be presented in the case of the entire composite list.

It is found that there are 198 books laid in the United States, thirty-three of them based on the East, twenty-four on the Middle West, forty-two on New England, forty-one on the South, and fifty-eight on the West. These are distributed with such evenness that all sections of the country seem to be fairly well described.

The Far North (in most cases this means Alaska) is represented by twenty-five books. Since London and Service are prominent in this list, the delineation of that region may be said to be accurate and adequate.

Canada apparently has only eight books to her credit, a very inadequate number considering the size of the country and its wealth of interesting material. The majority of these eight books, too, are concerned with only one section of the country, Labrador, and are usually connected in some way with the work of Dr. Grenfell.

Mexico has only seven books, and these seven are mentioned less than six times each, indicating that there is no widespread interest in that near neighbor. How far these books give an adequate revelation of the country it is impossible to say. Certainly, for reasons of international and sociological import it is most important that America become better acquainted with Mexico. Seven books, infrequently mentioned, certainly furnish an inadequate basis for such an acquaintance.

England, as was discovered by an analysis of only the books most frequently mentioned, is adequately taken care of.

France, Belgium, and Holland together have a representation of ninety books, a large number of them being war books. These latter are not very satisfactory or valuable as geographical revelations, as in most cases they merely picture the trenches, the men holding them, and their life and death. The countries themselves are described with only fair accuracy.

Italy has thirty-seven books which are mentioned less than six times. This indicates an inadequate treatment of that country. If these thirty-seven books truly represent Italy, they should be more generally recommended.

Ireland seems to have only six books interested in her. Moreover, some of these do not in any way reveal the country even though they are, technically speaking, laid there, which makes the

situation still more serious. Poor Ireland! Perhaps if it were more thoroughly understood, some of the difficulties connected with it would disappear.

Germany has only three books, and one of them is useless geographically. That is, of course, a deplorable situation. No doubt war prejudice has something to do with it but the situation needs remedying.

Poland has two books and Switzerland one, a condition obviously unsatisfactory.

Russia seems to have only fourteen books to her credit, thirteen of them being mentioned less than six times. These books may be adequate as far as they go, but they are not mentioned with sufficient frequency to reach many of the students.

South America has only seven books, a meager and unsatisfactory showing when we consider our aspirations to trade with her. Successful commercial relations are impossible when there is no understanding and, so far as the list shows, no interest.

In addition to the books already mentioned we have, of course, several books of travel insufficiently localized to be classified with any particular country. These books of travel furnish valuable material and must be thought of as supplementing the ideas of practically all the countries mentioned.

The results of the geographical investigation might be summed up as follows: (1) The United States, in all sections, is revealed with entire adequacy. (2) England is satisfactorily pictured. (3) Scotland is fairly well described. (4) France and Canada are not so well revealed. (5) Greece, Italy, Russia, Sweden and Norway, Spain, Palestine, and India need more general and frequent attention. (6) Other parts of the globe receive entirely inadequate treatment.

This situation challenges the statement of any aim such as that of attempting to broaden the child through mental experience in various geographical sections of the world. If it is a legitimate aim, as is assumed, and if it is worth stating in the course of study, why is so little effort made to meet it? Is it because English departments are bound by custom in the books they select? Is it because they are over-conservative? Or are there really no books

concerning these countries that would be suitable to give to high-school students? An answer to the last question can be found only in an exhaustive and careful study of the literatures of the world.

A study of the literatures of the world may reveal considerable material on some countries which will be very suitable for use on these reading lists after it is translated. Such material, adequate as to literary form, moral tone, etc., should be seized and incorporated into the book lists. Again, for certain other countries, nothing at all may be found. It may be necessary in such cases to supplement the situation by material of a didactic nature. In the meantime, perhaps it will be necessary to call for authors to produce the other type of thing, for the interesting and normal way of seeing and knowing a country is to know it as a background for the drama of human action. Always the English teacher must be on the alert to discover any new material which may be added to the lists to help in the realization of the objectives of education and in particular those of reading.

It is suggested, then, that there should be a revision of the reading lists recommended by English departments in high schools with the definite purpose of making possible the realization of the objective of widening the pupil's geographical consciousness. To do this it is necessary to make a careful study of existing literature on various parts of the world; to incorporate into the reading lists any suitable literature which is found to reveal various countries that are inadequately treated at the present; to be on the alert for the discovery of all new and available material as it appears; to ask for material to be prepared where it does not seem to exist; and to realize to the full the importance of broadening the pupil's geographical horizon.

## A TECHNIQUE FOR THE LENGTHENED PERIOD

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The supervised-study period includes every phase of teaching that aids pupils in (1) mastering subject-matter, (2) forming study habits, (3) acquiring ability to apply knowledge in new situations, and (4) developing qualities of good citizenship, such as co-operation, initiative, desire to work for the common good, suspended judgment, and toleration for others.

Technique refers to the skill with which the teacher handles pupils and utilizes time and materials in securing results. It is the manner in which the teacher secures self-activity on the part of the greatest number.

In the Bucyrus High School the periods vary in length from sixty-two to sixty-seven minutes. This discussion relates to the sixty-two-minute period. The period is made up of the following divisions with the time allotments stated: (1) recapitulation—five minutes; (2) statement of business of the day—two minutes; (3) discussion—twenty-five minutes; (4) assignment—five minutes; and (5) study period—the attack—twenty-five minutes. The method of conducting the entire period is based on certain recognized principles of instruction and management: (a) self-activity, (b) maximum participation, (c) proportion, (d) novelty and variety, and (e) dispatch.

The principle of self-activity affirms that one is educated through what one does. The teaching in the Bucyrus High School is based on the fundamental principle that learning and doing are inseparably linked, that is, that learning is the result of the activity of the learner, not something resulting from a pouring-in process on the part of the teacher.

The principle of maximum participation aims to secure as many as possible as participants, leaving as few as possible as onlookers.



According to the principle of proportion, significant considerations are first with reference to both content and method. Subject-matter which best meets the needs of the group receives the most careful and thorough attention. Non-essentials are neglected.

Good business sense demands that the classroom teacher work with speed. The affairs of the period need to be executed quickly. A loss of one minute means a total loss of thirty-pupil minutes. If this loss of time is increased to two or three minutes, the total loss in pupil-minutes becomes a matter of concern.

*The recapitulation.*—Since one is educated by his own responses which depend on two factors, namely, (1) his past experience and (2) his present frame of mind, the purpose of this part of the period is to aid the student in organizing his experiences and in putting himself in the right frame of mind for what is to follow. This division of the period should, therefore, include a summarization of the few preceding lessons and a presentation of the skeleton or framework of relevant parts of the course.

Applying the foregoing principles to this end, it is possible to have all students make a few notes on what was done in the preceding lesson or two. Several students can then read what they have written. If the principle of proportion does not seem to have been well observed, the teacher may call on some student who is likely to bring out needed points, or the teacher may suggest points that have been omitted. The teacher may furnish each member of the class with a mimeographed outline which is to be filled in. Requiring the class to write on a carefully worded problem for a few minutes, the answer for which was included in recent lessons, may be valuable. The class may be divided into several groups of four or five students each for the purpose of choosing the most important points so far considered. The chairman may add to it or criticize. Teacher or pupil may conduct some type of drill work. A class secretary's report may accomplish the purpose. A new story may be told by a student or by the teacher to illustrate the point. Material drawn from newspapers, magazines, or commercial and industrial fields may be brought in and discussed.

Beginning on time aids in observing the principle of dispatch. Daily reference in some way to the fundamentals of the subject

previously discussed helps to make the recapitulation cumulative. Graphic representation, material presented by use of a reflectoscope, or a new viewpoint presented by the teacher may be employed for the sake of novelty. Boys and girls like a change and, therefore, a review ought not to be so systematized that the same thing is done each period. Variety lends interest.

*The aim.*—The statement of the business of the day gives a "swing" to the work at hand. It implies a plan for the period; hence the work of each period needs to be carefully planned. It sets up an immediate goal and makes each boy and girl in the class want to know what is going to be done. In accordance with the principles of novelty and proportion, the teacher may challenge the class to find out as much as possible about a certain problem in a given length of time, or to discover what a certain statement means in the light of the day's lesson. Each pupil may be required to formulate a statement of the business of the day. Pupils in conference with the teacher may take turns at formulating the statement and presenting it to the class, or a committee from the class may work in like manner. Probably in most cases this statement of the business of the day is an outgrowth of the previous day's assignment; but it is more than a mere statement of the assignment.

*The discussion.*—The discussion part of the period serves several purposes. In relation to subject-matter, it is for the purpose of working over and clarifying material previously assigned. In relation to method, its purpose is to develop an interest in the common good, initiative, critical intelligence, and suspended judgment. Merely reciting from the textbook does not mean much except in memory subjects. The findings of an individual or group may be presented. The contributions of teacher or outside speaker are acceptable here. If the problem method is in use, it furnishes a splendid opportunity for exchange of ideas and experiences. The individual refers his experiences and actions to those of others, thereby giving point to his own. Mimeographed problems and topics aid materially in securing attention and in furnishing a basis for discussion. Every pupil should make some contribution during this part of the period. Continued emphasis on this point is essen-

tial. Pupils can readily see that what helps the class helps them individually, and they can also see that they have a part to play. Frequently the class can be divided into smaller groups with a chairman for each group and the problems discussed in groups. Each group may have a special problem to investigate. All of this will require some planning on the part of the group, and information will be needed from reliable sources before a conclusion may be reached. The teacher plays the rôle of guide and director, suggesting here and cautioning there. A good director capitalizes ability and leadership and does nothing which can be done by some member of the class. The problems used in the discussion may be written by the teacher or by a small committee working with the teacher.

Much depends on the type of problem used. An understanding of boys and girls and their experiences together with a clear conception of the aims of education enables the teacher to formulate suitable problems. In certain subjects much of the discussion will necessarily be of the drill type. In such cases the principle of variety should be observed by providing a few minutes of oral work, some blackboard work, some drill-card work, and perhaps some written work on paper. A student chairman may look after some of this, and the teacher may assume direct charge of part. When a student chairman is to assume charge, the teacher, on the day preceding, should go over the work with the pupil and be sure that careful plans are made and understood.

*The assignment.*—Following the assignment, and probably during a part of it, an attack is to be made on a certain content. The assignment therefore involves (1) the material to be attacked and (2) the method of attacking it. Always the aim of the assignment is to motivate the work to be done, to give purpose and zeal to the attack, and to create the desire to achieve.

If a sense of incompleteness is the result of the discussion, much has been accomplished by the assignment. The content to be attacked may then be considered. It is very difficult to secure good results by having a pupil take charge of this part of the period. This does not mean that it should not be attempted. In some cases it may well be done. The experience of the writers has been

that in most cases better results can be obtained when the teacher looks after this part of the period. The assignment of a chapter or of a certain number of pages is the poorest kind of an assignment and is the least valuable. The topical assignment is somewhat better. The problem method of assignment is unquestionably still better. It provides the pupil with something definite to think about and allows him to select what may best serve his purpose. It is also more easily adjusted to individual needs. If the problems are oral, pupils should make enough notes in the margin of their books to keep the problems clearly in mind. They should also make notes on references to be looked up, maps to be consulted, and special work to be done. If the problems are not in the text, time can be saved for the class by having them mimeographed. By the problem method, individual assignment can be approximated. The study thereby becomes more purposeful.

If the problem method is used, the plan of attack is fairly well outlined. Even in this connection, however, boys and girls need to be instructed in how to collect information and draw conclusions. The habit should be formed of using the dictionary in the case of all words the meanings of which are not clear. Pupils should have practice in using reference books and should get some experience in interviewing people who are experts in their lines of work. In brief, boys and girls should be taught how to study—a big undertaking. Before this can be done, the school administrator and the classroom teacher must know how to study and then learn to teach pupils how to study.

*The attack.*—In supervising the study of pupils the teacher should first see that the conditions are as conducive to study as possible. These conditions may be classified under three heads: (1) physiological, embracing those concerning health, food, time of eating, sleep, rest, and recreation; (2) physical, embracing light, heat, ventilation, absence of distraction, etc.; (3) psychological, concerning attitude toward study, a quick start, time limit, interest in subject, variety of appeal, etc.

The more technical part of the instruction involves a number of considerations: (1) The pupil must be taught how to study. The teacher might work out a definite mode of procedure suited

particularly to his own special subject and then take considerable time at various opportunities to instruct the pupils. (2) The pupil should be shown how to concentrate attention upon the subject at hand. This is a very important task, and he who has learned this has mastered a valuable lesson. (3) The pupil should be directed to have a clear purpose in his work—to find out just what is to be done. This will eliminate a great amount of inefficient study and wasted effort. A well-planned assignment will aid greatly in this direction, but the teacher must be ever on the alert during the study period to see that the pupil knows what to do. (4) The pupil should develop a vital interest in his work. (5) The pupil should develop a critical attitude toward his work and form the habit of suspended judgment. (6) The pupil should be taught the necessity of understanding material that is to be learned. He should not waste his time in mere repetitions but should seek to gain such understanding of the material that recall will be instant. (7) The pupil should be taught to distribute his time and not spend an undue amount of time upon the first part of the assignment to the neglect of the latter part. (8) The pupil should be taught accuracy, care in detail, desire for knowledge, and love for his work.

As the live teacher passes back and forth among the pupils, many ideas will occur to him which will aid in directing the pupils in their work. Two purposes should always stand out prominently among the others: (1) to find out when the child is in trouble and (2) to help him over the difficulty without giving too much assistance.

## THE LECTURE METHOD VERSUS THE QUESTION-AND-ANSWER METHOD

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The purpose of this investigation was to determine through experimentation the relative value of the lecture and the question-and-answer methods of class instruction in the teaching of the social sciences. In order to secure concrete data on this problem it was decided to prepare a series of lessons on some topics with which the pupils were not familiar, teach this material by the two methods under consideration, and then test the results. The subject-matter selected for these lessons was the government of England and the government of Switzerland. These governments were chosen for two reasons: first, pupils in the junior and senior high school as a rule have never made a systematic study of either of these governments and, second, these governments are so different in form and organization that very little that was learned as a result of a study of one government would carry over into the study of the other government.

Each class tested was divided according to the rank method. While no attempt is made to justify this method of dividing a class, the experiment was conducted in such a manner that any variable which occurred as a result of this method of division was taken care of later by the method of cross-checking.

In conducting the recitation, an attempt was made to secure conditions as normal as possible. Certain limitations, however, were necessary. The assignments used in both sections were given the class in typewritten form without comment. All reference material and notebook work were abandoned as these would create variables over which there would be no control. All material to which reference was made in the lesson was mimeographed and placed in the hands of the pupils at the beginning of the twenty-

minute study period, and as soon as the recitation was over this material was collected to prevent the over-ambitious pupil from studying outside the class. The pupils were called on in alphabetical order to insure that the brighter ones did not do most of the reciting. Care was also taken to make sure that if a map or outline was used in one section, the same map or outline was likewise used in the check group section.

Both sections studied the same material in the same room under the same teacher. An equal amount of time elapsed between the study period and the recitation period in both sections. The same amount of time was given to the recitation period in each section. The only variable was the method of conducting the recitation. The method followed in the lecture section was of such a nature that it prevented any comment by the pupils, the aim in each case being to prohibit any other method of instruction entering into the experiment.

The method of testing, while not perfect, was far superior to the average methods of testing as found in our public schools. Fifty questions were asked concerning each lesson. After each question, four answers were given, one of which was right and the rest wrong. The pupils in each section were instructed to place a check mark after the correct answer.

Five lessons on the government of England were presented to Section A by the lecture method and to Section B by the question-and-answer method. As a means of checking the results of the five-day experiment, a sixth lesson on the government of Switzerland was presented to the same classes, except that this lesson was presented to Section A by the question-and-answer method and to Section B by the lecture method.

In the ninth, tenth, and eleventh grades of the University (Iowa) High School where this experiment was first conducted, much sickness was experienced among the pupils. Since it was impossible to use any of the scores of those pupils who had missed any part of any lesson, the experiment was carried to ten other high schools of the state, the lessons there being conducted by ten other teachers of social science who were interested in the problem.



The data obtained in this experiment were examined for the purpose of finding answers to three questions. (1) Do pupils learn more factual material from the lecture or from the question-and-answer method? (2) Which of these methods is better to use in teaching the pupils of the upper quartile? (3) Which of these methods is better to use in teaching the pupils of the lower quartile?

In order to answer the first question, the data for each class taught were collected for two groups: (1) those who were instructed by the lecture method and (2) those who were instructed by the question-and-answer method. Each pupil's record appeared in both columns; in one, it represented his grade when taught by the question-and-answer method, and in the other it represented his grade when taught by the lecture method. It is true that in one case the pupil studied the government of England and in the other the government of Switzerland. Nevertheless, each pupil studied and recited both lessons under exactly the same conditions, the only variable being the method used in the class instruction.

Table I is a summary table presenting the scores of 271 pupils who were instructed by the two methods described.

TABLE I  
COMPARATIVE SCORES OF 271 PUPILS\* TESTED ON SUBJECT-MATTER TAUGHT BY THE QUESTION-AND-ANSWER METHOD AND THE LECTURE METHOD

QUESTION-AND-ANSWER METHOD		LECTURE METHOD	
Score	Number of Pupils	Score	Number of Pupils
90-100.....	86	90-100.....	80
80-89.99.....	76	80-89.99.....	71
70-79.99.....	50	70-79.99.....	58
60-69.99.....	44	60-69.99.....	34
50-59.99.....	9	50-59.99.....	19
40-49.99.....	5	40-49.99.....	6
30-39.99.....	1	30-39.99.....	2
20-29.99.....	0	20-29.99.....	1
Total.....	271	Total.....	271
Median.....	83.25	Median.....	81.61

\*Only those who were present at all recitations are considered in this table.

Table II shows the results of the two methods of teaching for all pupils who were ranked in the first quartile by the teacher.

TABLE II

QUARTILE DISTRIBUTION, ON THE BASIS OF TEST SCORES, OF 73 PUPILS IN GRADES VII TO XII BELONGING IN THE FIRST QUARTILE ACCORDING TO TEACHERS' RATINGS

METHOD	Q <sub>1</sub>		Q <sub>2</sub>		Q <sub>3</sub>		Q <sub>4</sub>	
	Number	Per-centage	Number	Per-centage	Number	Per-centage	Number	Per-centage
Question-and-answer.....	42	57.53	13	17.80	12	16.43	6	8.21
Lecture.....	49	67.12	12	16.43	9	12.60	3	4.10

Table III shows the results of the two methods of teaching for all pupils who were ranked in the fourth quartile by the teacher.

TABLE III

QUARTILE DISTRIBUTION, ON THE BASIS OF TEST SCORES, OF 69 PUPILS IN GRADES VII TO XII BELONGING IN THE FOURTH QUARTILE ACCORDING TO TEACHERS' RATINGS

METHOD	Q <sub>1</sub>		Q <sub>2</sub>		Q <sub>3</sub>		Q <sub>4</sub>	
	Number	Per-centage	Number	Per-centage	Number	Per-centage	Number	Per-centage
Question-and-answer.....	6	8.69	8	11.59	18	26.08	37	53.62
Lecture.....	5	7.24	6	8.62	16	23.18	42	60.86

Since this experiment was based on the teaching of government, any conclusions made will have to do with this type of material only. Again, since the value of each method is measured only by the results of certain types of examinations heretofore explained, it must be borne in mind that the conclusions reached as a result of this study are valid just to the extent that the method of measuring is accurate.

#### CONCLUSIONS

1. When subject-matter similar to the material taught in this experiment is to be presented, it makes but little difference, from

the standpoint of factual material learned, whether it is presented by the lecture method or the question-and-answer method.

2. Using the median as a measure of central tendency, it appears that the pupils in Grades VII to XII, inclusive, are able to learn more factual material by the question-and-answer method than by the lecture method. Since, however, the score in the question-and-answer method is only 1.64 per cent higher than that resulting from the lecture method, the gain is perhaps too little to affect educational methods.

3. The pupils in Grades VII, VIII, and IX, in so far as we were able to determine by the method used, are able to remember more factual material about government when taught by the question-and-answer method than by the lecture method.

4. In Grades X, XI, and XII it made but little difference, under the circumstances which prevailed throughout this investigation, whether the question-and-answer method or the lecture method was used. As a rule, however, the higher score resulted from the use of the lecture method.

5. The pupils who were ranked in the first quartile by the teacher were able to remember more factual material about government when taught by the lecture method.

6. The pupils who were ranked in the lower quartile by the teacher were able to remember more factual material about government when taught by the question-and-answer method.

## INTELLIGENCE TESTS AND THE CLASSIFICATION OF PUPILS. II

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Two problems are discussed in this series of articles. In the preceding article an attempt was made to answer the question, How accurately do certain general-intelligence tests measure the intelligence of high-school pupils? In the present article the problem is, How accurately do these intelligence tests enable one to predict the educational achievement of high-school pupils?

*Findings reported in the previous article.*—In the first article the Otis, Terman, and Chicago group intelligence tests were found to have an inter-test correlation of .77. Thirty per cent of the pupils classified by one test were found to be out of place according to another. Eighteen per cent of the pupils classified by the tests were not classified according to their intelligence. In measuring an individual pupil, the tests differed, in average, 6 points on the Chicago scale, 11.1 points on the Otis scale, and 13.9 points on the Terman scale. The greatest difference between scores on two scales for the same pupil was 52.61 points. The Otis test gave more satisfactory results than the tests with which it was compared.

It is clear that high-school teachers must observe considerable caution in using the scores from these tests as measures of the intelligence of pupils. The data mentioned indicate the amount of error to expect. What caution, then, should be observed in inferring future educational achievement from the scores of these tests?

*Two problems to be kept distinct.*—In the consideration of this problem, comparisons will be presented between measurements made by means of intelligence tests at the beginning of a semester and measurements of educational achievement made during and at the end of the same semester. Two questions must be kept

distinct in the course of the discussion: (1) Is intelligence a satisfactory basis of classification? (2) Are scores from intelligence tests a satisfactory basis of classification? The answer to the first question must manifestly await further investigations. A satisfactory answer to the second question can be more easily obtained.

In order, however, that certain data relating to the first of these problems might have due consideration, it was decided to use a composite-intelligence score derived from the three intelligence tests in addition to scores from single tests. This was done on the principle that the average of several expert attempts to measure an object or reaction is probably more reliable than a single expert attempt. In other words, it is expected that the composite will

TABLE VI  
METHOD OF TRANSMUTING SCALE SCORES INTO PERCENTILE SCORES

Number of Pupil	Score in Otis Test	Rank	Frequency Percentage	Sigma Score	Percentile Score
21.....	98	60	.02	.56	11.2
15.....	105	59	.03	.70	14.0
49.....	108	58	.05	.91	18.2
4.....	116	57	.07	1.07	21.4
47.....	118	55.5	.09	1.20	24.0

provide a more reliable measure of intelligence than any one of the three tests.

*Computing a composite from the scores of the three tests.*—Before the scores from the three tests can be averaged they must be expressed in the same unit. Several possible statistical methods of reducing the scores to a comparable basis were considered, two of which were selected and tested in regard to their reliability. These methods may be designated (1) transmutation of the three series of scores into units on a percentile scale and (2) transmutation of two series of scores into units on the third scale. For those who may be statistically interested, the steps of the transmutation process by Method 1 are illustrated in Table VI. In the first column of the table is shown the number of the pupil, in the second the Otis scores in the order of increasing magnitude, in the third the rank of the pupil, in the fourth the corresponding frequency percentage, in the fifth the corresponding score on a 5-sigma scale,

and in the sixth the score on a 100-point or percentile scale. A table of values of the probability integral was used to convert frequency percentages into corresponding values on the 5-sigma scale.<sup>1</sup>

Table VII shows for the same pupils the method of deriving the series of composite scores from the three series of percentile

TABLE VII  
METHOD OF DERIVING THE COMPOSITE PERCENTILE INTELLIGENCE SCORE

Number of Pupil	Chicago Percentile Score	Otis Percentile Score	Terman Percentile Score	Composite Intelligence Score
21.....	21.4	11.2	20.0	17.5
15.....	28.0	14.0	20.0	20.7
49.....	24.0	18.2	11.2	17.8
4.....	11.2	21.4	14.0	15.5
47.....	36.8	24.0	28.0	29.6

scores. The composite-intelligence score for any pupil was obtained by averaging the three percentile scores for that pupil. In Table VII pupil 21 is shown to have percentile scores of 21.4, 11.2, and 20, in the Chicago, Otis, and Terman group tests, respectively, from which his composite percentile intelligence score of 17.5 is derived.

TABLE VIII  
RELIABILITY OF DERIVED PERCENTILE SCORES

Series of Scores	Coefficient of Correlation	P. E.
Chicago and its derived percentile.....	.996	.0007
Otis and its derived percentile.....	.990	.0017
Terman and its derived percentile.....	.979	.0036

As a test of the reliability of this transmutation process, the correlation was computed between each original series of scores and the percentile series derived therefrom. The coefficients and probable errors appear in Table VIII. The coefficients are all extremely high and the probable errors negligible. This indicates that in each case the derivative score is an accurate substitute for

<sup>1</sup> See H. O. Rugg, *Statistical Methods Applied to Education*, p. 392. Boston: Houghton Mifflin Co.

the original from which it was derived. And if the three scores of each individual are thus accurately represented, the composite derived therefrom should accurately represent the individual's average score in the three tests.

The reliability of this series of composite scores was further checked by comparison with a series of scores derived by the second method of compositing mentioned. The Chicago and Terman scores of each pupil were transmuted into Otis units, and these two derived scores were averaged with the pupil's actual Otis score. The transmutation was performed by the use of the regression equation,  $y = r \frac{\sigma y}{\sigma x} x$ , in which  $y$  represents a pupil's

TABLE IX

METHOD OF TRANSMUTING CHICAGO AND TERMAN SCORES INTO OTIS VALUES

Number of Pupil	Actual Otis Deviation	Transmuted Chicago Deviation	Transmuted Terman Deviation	Deviation of Composite Score
1.....	- 6.0	-22.39	+ 2.03	- 8.79
2.....	+ 6.0	+ 4.44	+13.73	+ 8.06
3.....	+34.0	+ 8.14	+16.85	+19.66
4.....	-35.0	-42.74	-46.33	-41.36
5.....	+17.0	+42.37	+26.21	+28.53

deviation from the mean of one series of scores,  $x$  his deviation from the mean of another series,  $\sigma y$  the standard deviation of the first series,  $\sigma x$  the standard deviation of the second series, and  $r$ , which in this case is given the value of unity, the coefficient of correlation between the two series. After the deviation of each individual score from the median of its distribution was found—that is, the  $y$  and  $x$  values in the formula—it became a simple matter to compute for any pupil's deviation in one test the corresponding deviation, under conditions of perfect correlation, in another. In other words, it was thus possible to compute for any score in one test the equivalent score in either of the other tests.

Table IX illustrates the results of these computations. In the first column is given the number of the pupil, in the second his deviation from the median of the Otis series, in the third his Chicago deviation transmuted into Otis units, in the fourth his



Terman deviation transmuted into Otis units, and lastly the average of these three deviations. The average, for pupil No. 1, —8.79, indicates that this pupil's composite intelligence score is 8.79 points below the median score (151) of the group in the Otis test.

This series of composite values was used to check the reliability of the percentile composite series. Low correlation between the two series would indicate that at least one of the two methods of compositing is unreliable. High correlation between the two would justify the conclusion that both methods are reliable. The coefficient of correlation was found to be .998, with a negligible probable error, indicating the satisfactory reliability of both methods. The percentile composite scores were now used to represent the average measurement of the three tests in the later study of the relation between scores on intelligence tests and measures of educational achievement. This method of compositing was also used later to derive an arithmetical-ability score from results secured in tests of computational skill and arithmetical reasoning, and to combine scores in arithmetical ability and general intelligence.

*The relation between standing in general-intelligence tests and achievement in school tests.*—To the fifty-four seventh-grade pupils and the sixty ninth-grade pupils, who had taken the three intelligence tests near the beginning of the semester, certain school tests were administered monthly during the semester and a final examination at the end of the semester. These tests, like all other tests of educational achievement used in this study, were limited to the field of mathematics. The school tests referred to here were prepared by Mr. Breslich. They were alike for a given phase of the work in all sections of the same grade, were administered under the direction of the author, and were scored by a key prepared by him to accompany them.

#### SAMPLE TEST WITH KEY FOR SCORING

- I. A building 45 ft. high casts a shadow 55 ft. long. Find the angle of elevation of the sun by means of a scale drawing.

Select the scale..... I  
Draw the figure..... I  
Find the angle..... I

- II. Find by similar triangles the height of a building which casts a shadow 43 ft. long when a vertical seven-foot pole casts a shadow 9 ft. long.

Make the sketch..... I

Write proportion..... I

Solve the equation..... I

- III. Solve

$$\frac{x}{10} = \frac{19}{6}$$

Multiply by 10..... I

Reduce..... I

Solve

$$\frac{2x}{3} + \frac{3x}{4} = 23$$

Multiply by 12..... I

Reduce..... I

Collect terms..... I

Divide..... I

- IV. Find the angle of elevation by means of the tangent ratio when a building 118 ft. high casts a shadow 143 ft. long.

$$\tan x = \frac{118}{143} \dots\dots\dots I$$

$$\tan x = .81 \dots\dots\dots I$$

$$x = 39^\circ \dots\dots\dots I$$

The results from the school tests were employed in two ways. First, the average score of each pupil was found in the monthly tests only. Second, the average score was found for the monthly test and the final examination, each monthly test being given a

TABLE X  
CORRELATION BETWEEN SCHOOL TESTS AND PERCENTILE COMPOSITE  
INTELLIGENCE SCORES

Series of Scores	Seventh Grade	Ninth Grade
Monthly tests and percentile composite.....	.365	.327
School tests and percentile composite.....	.391	.315

weight of one and the examination a weight of two. The correlation between the percentile composite intelligence scores and each school-test series was then computed for both grades, with the results shown in Table X. It is observed that all the coefficients

are between .30 and .40, indicating no close relationship between the intelligence scores of the pupils, as represented by the percentile composite, and achievement in the school tests. If these school-test results are accepted as valid measures of achievement, the composite-intelligence scores clearly do not constitute an accurate basis of classification.

The degree to which classifications of pupils based upon the two series of scores are at variance with each other is shown in Figures 6 and 7. Each pupil is indicated by a small square in the diagram. The upper number in each square is the pupil's intelligence score, the lower his school-test score. The two heavy lines running upward through the figure mark the divisions between sections. The shaded squares show the displaced pupils, that is, pupils who would be in other sections if their classification were based on their record in the school tests.

In Figure 6, representing the ninth-grade group, the pupils are classified by the intelligence composite into three sections, corresponding to the three sections in ninth-grade mathematics. Out of the total of fifty-one pupils with complete records in both series of tests, twenty-eight, or 55 per cent, are found displaced. Figure 7 in similar manner shows the amount of pupil displacement in the seventh grade when forty-six pupils are classified according to the composite-intelligence scores into two sections. Eighteen, or 39 per cent, are found displaced. It should be noted that Figure 6 represents the situation where the coefficient of correlation was .31 and Figure 7 where it was .39, these being the lowest and highest coefficients respectively in Table X.

In attempting to draw practical conclusions from the foregoing data, consideration must be given not only to the reliability of the intelligence scores, but to the reliability of the school-test scores as well. In investigations of this sort scores from conventional school tests and the ordinary marks of teachers are commonly accepted as representative of a pupil's achievement in a subject. The same sort of critical caution should be observed with reference to measures of educational achievement that is now observed in dealing with measures of intelligence.

17.7	79
15.7	116
15.7	19

intell  
repre

12.9	60
10.0	14.9

FIG  
scores,  
placed p



FIG. 6.—Displacements of ninth-grade pupils classified into three sections according to composite-intelligence scores. School tests were used as the criterion of educational achievement. Hatched squares represent displaced pupils. Coefficient of correlation, .31; percentage of displacement, 55.

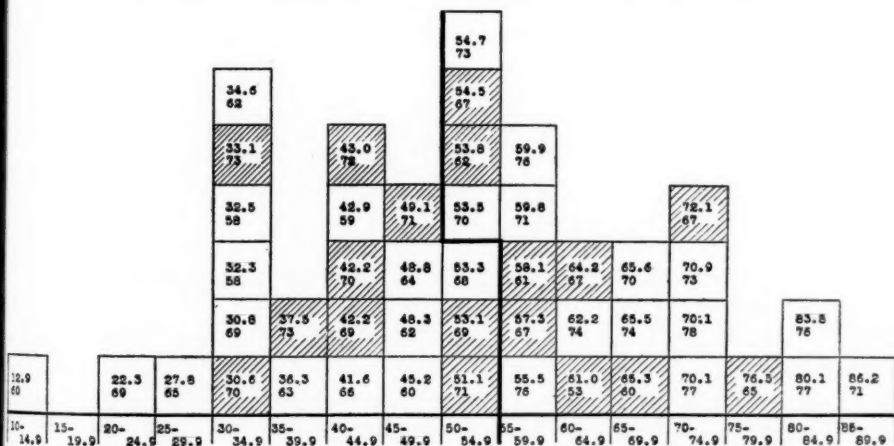


FIG. 7.—Displacements of seventh-grade pupils classified into two sections according to composite-intelligence scores. School tests were used as the criterion of educational achievement. Hatched squares represent displaced pupils. Coefficient of correlation, .39; percentage of displacement, 39.

The school tests administered in this investigation must be considered in connection with the particular system of instruction of which they form a part. In the University High School there is unusually strong emphasis on the mastery of essentials. The tests are constructed to determine whether the pupils have mastered certain definitely outlined units of work. The time allowance on a test varies for different pupils; that is, each is given as much time as he needs, within reasonable limits, to do his best on a unit. Thus achievement tends to be equalized, individual differences to be minimized, and ability to be measured apart from the factor of time. A considerable percentage of pupils commonly obtain an identical maximum score. While it is very probable that these tests serve admirably the purpose for which they are intended, it is quite clear that they are designed to meet a special situation, one that cannot be regarded as typical in public high schools. It seemed, therefore, expedient to make a further study of the educational achievement of one of these groups of pupils. The ninth grade was selected for this purpose.

At the beginning of this investigation it was thought that careful measurements of the previous achievement of these pupils in mathematics might possibly constitute a more satisfactory basis of classification for further work in mathematics than the scores of intelligence tests. Accordingly, along with the intelligence tests given at the beginning of the semester, the Cleveland Survey Arithmetic Tests were administered to determine the computational skill of the pupils. The arithmetical-reasoning tests administered as parts of the Otis and Terman group tests of intelligence were also used to measure ability in arithmetical reasoning. In scoring the Cleveland tests, the weights given by Counts<sup>1</sup> for the problems of the fifteen different component tests were used. The average score in the two reasoning tests was taken to represent arithmetical-reasoning ability. A score in *arithmetical ability* was obtained by averaging the scores in computation and reasoning with equal weight after each series had been transmuted, as previously described, into units on a percentile scale.

<sup>1</sup> George S. Counts, *Arithmetic Tests and Studies in the Psychology of Arithmetic*, p. 28. "Supplementary Educational Monographs," Vol. I, No. 4. Chicago: University of Chicago Press, 1917.

At the end of a semester a third check on mathematical achievement was secured. A test was given which was composed of the following examples taken from the Hotz first-year algebra scales,<sup>1</sup> Series A: addition and subtraction: 1, 5, 8, 13—5 minutes; multiplication and division: 1, 2, 3, 7, 9, 11, 16—14 minutes; equation and formula: 1, 3, 4, 6, 11—6 minutes; problems: 1, 2, 4, 7—7 minutes; graphs: all—25 minutes. Examples were selected which belonged within the field covered by the pupils during the semester. The test was uniformly administered to the three sections by Mr. Breslich; the papers were scored by a trained assistant, and each example in the scoring was given the value determined for it by Hotz.

Finally, inasmuch as industry seems to be one of the most important factors in scholarship, careful ratings of industry were secured from the teachers of these ninth-grade sections in mathematics. Blanks were provided with the following directions:

Rate each of the pupils in each of the following characteristics, using the numbers 1, 2, 3, 4, and 5; 1 being the lowest rating and 5 the highest: (a) promptness in beginning new work, (b) concentration on the work once begun, (c) perseverance in doing assigned tasks, (d) accomplishment of more than the minimum requirement, (e) attention to questions raised and suggestions made during the class period.

*Comparison of school tests and Hotz examples.*—In Table XI results from the school tests and Hotz examples are compared in regard to the closeness of their relationship with other factors ordinarily considered as important for achievement in ninth-grade mathematics. The school tests in this case include both the monthly tests and the final examination. It will be seen that the Hotz examples yield a measurement more closely related to the intelligence composite than do the school tests. The respective coefficients are .56 and .31. Both tests give results fairly closely related to industry, with no appreciable difference in the closeness of the relationship. Each shows a closer relation to intelligence and industry combined than to either one of these factors alone. Industry in this computation was given a weight of four as against one for intelligence. There is no significant difference in the size

<sup>1</sup> H. G. Hotz, *First-Year Algebra Scales*, pp. 5 f. "Teachers College Contributions to Education," No. 90. New York: Teachers College, Columbia University, 1918

of these coefficients. In relation to arithmetical ability, however, there is a marked difference between the tests. For the Hotz examples there is a coefficient of .43, and for the school tests a coefficient of .18. In the last item of the table is presented the relationship between the results from each of these tests and an average of the scores representing arithmetical ability and general intelligence. The last two series of scores were expressed in a common unit by reduction to a percentile basis before being averaged. The correlation in this case is much higher for the Hotz examples than for the school tests.

In summarizing the differences between the two tests, it may be noted that the Hotz test (1) is designed to meet a situation more commonly found in typical high schools, (2) equalizes the time factor in achievement, (3) distributes the pupils more widely in the upper range of the scale, (4) yields results more closely related to arithmetical-ability scores, and (5) yields results more closely related to scores from intelligence tests.

TABLE XI  
SCHOOL TESTS AND HOTZ EXAMPLES IN RELATION TO VARIOUS FACTORS IN  
EDUCATIONAL ACHIEVEMENT

Factors	Correlation with School Tests	P. E.	Correlation with Hotz Examples	P. E.
Intelligence composite.....	.31	.08	.56	.06
Industry rating.....	.53	.....	.55	.....
Intelligence composite and industry rating X 4 (one section).....	.61	.09	.62	.09
Arithmetical ability.....	.18	.09	.43	.08
Arithmetical ability and intelligence composite.....	.29	.09	.58	.06

The last two differences are probably due in large part to the first three. Lack of differentiation among the best pupils in the school tests would seriously affect the correlation with arithmetical-ability and general-intelligence scores. On account of this fact it does not seem profitable to enter into a further discussion of the significance of the difference between the correlation coefficients for the two tests. The main differences between the tests are clear and seem justified, for the most part, by the different functions





It has already been observed that the measures of arithmetical ability did not constitute a very satisfactory index of the later success of these pupils in mathematics. Further, combining the arithmetical-ability scores with the intelligence scores did not provide an appreciably more satisfactory basis of classification than the intelligence scores alone. The last two modes of classification are illustrated graphically in Figures 8 and 9. Figure 8 represents the ninth-grade pupils classified by the intelligence composite, with displacements checked against a classification according to the Hotz test. The percentage of displaced pupils was 51. When the same pupils were classified according to the combined scores in intelligence and arithmetical ability, the percentage of displaced pupils, Hotz scores being used as the criterion, was again 51. This is shown in Figure 9. These data on pupil displacement confirm the conclusion reached, namely, that a classification of the pupils based on intelligence scores would be quite as satisfactory as a classification based on a combination of intelligence and arithmetical-ability scores.

In order that the intelligence-composite and the Hotz-examples series of scores may be seen more clearly in their relation to other important measures, Table XII is provided. The correlation with

TABLE XII  
INTELLIGENCE COMPOSITE AND HOTZ EXAMPLES IN RELATION TO OTHER FACTORS IN  
THE NINTH GRADE

Factor	Correlation with Intelligence Composite	P. E.	Correlation with Hotz Examples	P. E.
Arithmetical ability.....	.51	.058	.43	.077
Industry rating.....	.57	.....	.55	.....
School tests.....	.31	.081	.58	.066

industry is about the same for both, the intelligence composite correlates more highly with arithmetical ability and less highly with school tests. The coefficient of correlation with each other is .56.

While the intelligence composite was found to be as satisfactory a basis of classification at the beginning of ninth-grade mathematics as any of the other bases tested, it must be noted that most high

schools would find the administering of three intelligence tests and the computation of composite scores a rather tedious process. It would be interesting to know what the loss in accuracy of classification would be, if any, in case the Otis test were used instead of the intelligence composite. The Otis test was therefore substituted. The correlation between the Otis and Hotz scores was .53. The pupil displacement was 51 per cent, indicating no loss in accuracy. This is graphically shown in Figure 10.

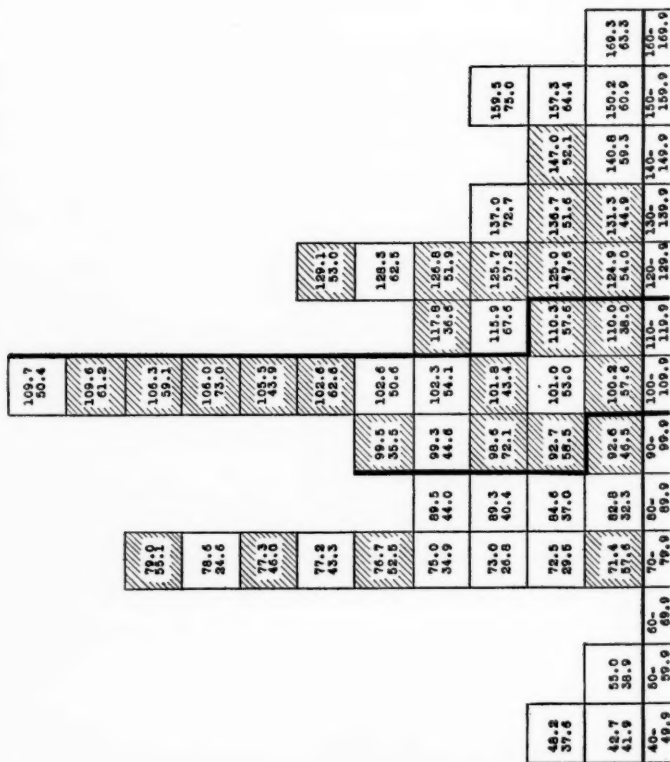
To summarize the portion of the discussion dealing with the basis of classification, Table XIII is presented. It is seen that there

TABLE XIII  
SUMMARY OF DATA ON CORRELATION AND PUPIL DISPLACEMENT

	Coefficient of Correlation	Percentage of Displacement
Otis group and Hotz examples. ....	.53	51
Intelligence composite and Hotz examples. ....	.56	51
Intelligence composite and arithmetical ability; and Hotz examples. ....	.58	51

is in the correlation coefficients a suggestion of improvement in the base as one proceeds from the first to the third of these comparisons. The figures on displacement, however, furnish no evidence with regard to relative superiority. The Otis test actually classified the pupils as well as either of the other means employed.

A displacement of 51 per cent in the foregoing case seems large. One may be inclined to think that measures of intelligence should forecast scholarship with greater accuracy. They probably would if intelligence and scholarship were accurately measured. Some psychologists, however, seem to believe that with perfect instruction and perfect measurement the pupil displacement in a case of this kind would be reduced to zero. On the basis of this view it has even been suggested that teachers be rated as efficient or inefficient according to the discrepancy between the intelligence and educational-achievement measurements of their pupils. The results indicate that there is no reasonable prospect of the success of such a scheme. Clearly, scholarship is not a matter of intelligence alone. It is a product, as well, of such powerful emotional factors as interest and such volitional factors as perseverance. These emotional and volitional elements, only slightly if at all measured



by intelligence tests, remain outside the field of intellect, to hamper or quicken the progress of the pupil in any subject. Not only does the best psychological theory seem to demand that these two aspects of our mental life be distinguished from the functions of intelligence, but it seems further to support the view that a gift in one does not necessarily imply a gift in all. Will and emotions, apparently, can no more be produced by facile instruction than can intellect.

The problem of classifying pupils by intelligence tests is obviously, then, complicated by the following conditions: (1) imperfect instruments for measuring intelligence, (2) imperfect instruments for measuring educational achievement, (3) imperfect correlation between intelligence and interest, (4) imperfect correlation between intelligence and will, (5) imperfect stability of the pupil, (6) imperfect instruction.

It seems probable, therefore, that the most accurate measurements of intelligence will not provide a reliable basis for classification under the most perfect school conditions. We have found that the Otis test failed to classify at least 13 per cent of a group according to their intelligence. It failed to classify 51 per cent according to their educational achievement. The inaccuracy in the measurement of intelligence does not account for all of the error in the second case. If the scholarship test in the second instance be assumed to have an error as large as that of the Otis test, and it is not conceded that it is larger, the disparity between intelligence and scholarship is not yet explained. There is good reason from these data to believe that other factors such as those enumerated are involved in the situation and make the problem a vastly more complex one than positing a perfect relationship between two abilities such as intelligence and scholarship and measuring one of them.

All one should expect from the group tests of intelligence, so far as the general problem under discussion is concerned, is that they provide a preliminary classification, which will be subject to rectification as the scholarly ability of the pupils becomes known. This they did in the present study more economically than any other means tried, and otherwise as satisfactorily. Other things being equal, the accuracy of such classifications will probably

increase considerably as the reliability of the measuring instruments, both psychological and educational, is increased.

#### SUMMARY AND CONCLUSIONS

1. This article is devoted to a study of the problem, How reliable are intelligence tests as a basis for classifying high-school Freshmen in mathematics?

2. Measures of intelligence are represented by the scores from the most reliable of three intelligence tests and by a composite of the three tests. The composite was assumed to provide a more reliable measure of intelligence than any single test.

3. A series of school tests and a test composed of examples from the Hotz algebra scales were used as the principal criteria of educational achievement.

4. Other data employed were industry ratings and a composite representing arithmetical ability.

5. The average correlation between the composite-intelligence scores and the school tests was .35. Pupil displacement for the ninth grade, when divided into three classes, was 55 per cent; for the seventh grade, when divided into two classes, 39 per cent.

6. The correlation between the composite-intelligence scores and the Hotz test was .56. Pupil displacement for the ninth grade, when divided into three classes, was 51 per cent.

7. The Otis test classified the pupils more satisfactorily than arithmetical ability scores, and as satisfactorily as either the intelligence composite or a combination of the intelligence-composite and arithmetical-ability scores.

8. Neither the composite intelligence scores nor the best of the intelligence tests provided a reliable basis for *permanent* classification. The error was in no case less than 50 per cent for a three-sectional classification in the ninth grade.

9. When the Hotz examples were used as the criterion of educational achievement, the Otis test provided a basis as satisfactory for a *temporary* classification as any other test or combination of tests tried, and did this more economically.

10. Intelligence is only one of a number of important factors in educational achievement.

## Educational Writings

### REVIEWS AND BOOK NOTES

*School publicity campaigns.*—In the administration of public affairs, whether federal, state, city, or local community, the greatest desideratum is mutual confidence and understanding between officials and their supporting constituency. This relationship has not been considered necessary in the administration of school affairs until within very recent years; but it is now being fully evidenced wherever the referendum has to be invoked to secure increased financial support for public schools.

The failure of many communities within recent months to ratify bond issues and to increase tax budgets for schools cannot be explained either on the ground of waning interest in education, or on the ground of unwillingness adequately to support needed schools. On the contrary, it is to be explained in terms of official dereliction in properly informing the public regarding educational needs, policies, and achievements.

As an aid to school administrators who are compelled to secure increased financial support for schools through the approval of local taxpayers, a recent report<sup>1</sup> has been issued which shows the need for conducting well-planned publicity campaigns of education in behalf of schools preliminary to submitting such propositions to a referendum. Even where the power of increasing the school budget rests solely with the administrative bodies, it is considered good educational policy to inform the public regarding the needs of its schools, rather than to be compelled to make *ex post facto* explanations in defense of administrative acts publicly disapproved.

The report describes in detail the technique of organizing, directing, and conducting school publicity campaigns, and gives many examples of publicity materials that have been used with success in such campaigns. It should prove to be an indispensable handbook for administrative officers who need assistance in developing and maintaining wholesome public opinion in support of schools.

W. C. REAVIS

*Age and the improvement of mental functions.*—A great many attempts have been made to determine the nature or the degree of difference in certain abili-

<sup>1</sup> CARTER ALEXANDER and W. W. THEISEN, *Publicity Campaigns for Better School Support*. Yonkers-on-Hudson, New York: World Book Co., 1921. Pp. 164.



ties or traits which may be regarded as characteristic of the mental make-up of the individual at different stages of maturity. There are relatively few studies, however, which report the results of comparable measurements of such attributes of the same individuals at earlier and later age periods. A recent report<sup>1</sup> of this type is based on the author's findings in a study involving the retesting of the same group of children after one year, and again at the end of the second year.

The children tested ranged in age from nine to fifteen, and were enrolled in grades four to nine of the training school of the State Teachers College, Mankato, Minnesota. The tests administered included well-known standard tests relating to speed and quality of handwriting, spelling, the fundamental operations and reasoning in arithmetic, composition, language, and reading. Tests of auditory memory, intelligence, reasoning, ability to follow directions, etc., were likewise given. In all, twenty types of tests were administered, seventeen of which were included in each retesting as well as in the initial examination. Of the 171 children included in the study, 78 took all of the tests twice, and 67 took all of them three times. The testing was done in May of the years 1918, 1919, and 1920.

The author recognizes the fact that since all of the children of nine or ten years of age who were tested had obviously made normal or more rapid progress through the first four grades, these do not constitute a fairly random sampling of school population for their age groups. On the other hand, since no pupils above the ninth grade were tested, the older groups doubtless lacked a few of the normal number of children of superior ability.

The results of the tests are shown in the tables by age and by sex for each test. The amount of progress made by any pupil during the year intervening between two tests was determined by subtracting his score on a given test from his score on the same test a year later. These improvement scores are likewise shown by age and by sex for each test. In order to offset the effects of varying values in the units of the different tests and of varying numbers in the different age groups tested, as well as to make possible a number of comparisons of results obtained in this study and other similar studies, the gross gains of boys and of girls in each test at each age are divided by the average of the standard deviations of ages eleven, twelve, and thirteen.

As a further means of making more reliable inferences from the results of the testing, the tests are themselves classified on four different bases, according as there appeared to be evidence of (1) similar functions, (2) the presence or absence of high scores, (3) influence of school instruction, (4) ability required to make initial score. By averaging the standard deviation gains for each age and sex on the tests thus grouped, comparisons were made possible as to the rate of improvement in the different types of mental functions tested, the

<sup>1</sup> FOWLER DELL BROOKS, *Changes in Mental Traits with Age*. "Teachers College Contributions to Education," No. 116. New York: Teachers College, Columbia University, 1921. Pp. 84.

rate of improvement in tests showing the influence of school instruction, etc. The scores are also analyzed to show the correlations between mental traits at different ages, between gains in different groups of functions for a two-year interval, and between intellectual ability and mental improvement.

The following are some of the conclusions which seem to be supported by the results of these tests:

The rate of gain, determined by annual retests of 171 children, ages nine to fifteen, in grades four to nine, using a battery of eighteen tests is practically a straight-line affair, decreasing some at the later ages.

The rates of improvement for boys and girls suggest no significant sex differences.

The correlations between abilities at a two-year interval in the four groups of functions (simpler, memory, higher, and informational) are found to be high, the corrected coefficients indicating that these abilities are a relatively permanent endowment.

Gains or improvement and I.Q. are found to have low positive correlations in three cases—simpler, memory, and higher—and a low negative correlation, practically zero, in the case of the informational group. This latter is due to inadequate testing of the superior children. . . . Further experiments, carefully planned and carried out, are needed to determine the extent of the correlations between intellectual ability and rate of improvement [pp. 83-84].

The monograph includes a survey of the previous experiments that have attacked the problem in similar manner. The results of certain of these have been recalculated to permit direct comparisons with the results of this study. The data of other tests have in some instances been combined with those of this study as a means of increasing the number of cases for a given age group. There is every evidence that the investigation has been carried through with great care, and that the results have been subjected to the most painstaking analysis. The report is interesting from the point of view of the results shown as well as of the procedure employed.

N. B. HENRY

*An experimental study of ideals.*—Although the development of ideals has frequently been made a subject of discussion in educational literature, there have been few attempts to establish an experimental basis for their consideration. The difficulty of securing any direct objective measurement of ideals is so evident that it has caused many students to regard the problem as not susceptible to an experimental method of attack. A recent monograph<sup>1</sup> by Dr. Paul F. Voelker, which describes an attempt to ascertain the growth of an ideal by an indirect measurement of its functioning in behavior, is, therefore, of considerable significance.

In the first half of the monograph the author makes an analysis of some of the objectives of social education, foremost among which are such elements

<sup>1</sup> PAUL FREDERICK VOELKER, *The Function of Ideals and Attitudes in Social Education*. "Teachers College Contributions to Education," No. 112. New York: Teachers College, Columbia University, 1921. Pp. 126.

as trustworthiness, loyalty, social service, social sympathy, and social conscience. The modern concepts of these ideals are summarized in a pertinent manner. With this analysis as a basis, the author next outlines a series of methods for developing ideals as a hypothetical solution of the problem, the real value of these proposals to be tested by the experiments which follow. The suggested methods of developing ideals are presented in a well-supported series of twelve statements. The author assumes

1. [that] social education can best be given in a social environment. . . .
2. that standards should be built up within the group and not imposed from without. . . .
3. that every modification of the standards of the group and every moral readjustment in the minds of the individuals composing the group can best be brought about by means of grappling with vital issues. . . .
4. that the positive social virtues can best be strengthened by means of actual participation. . . .
5. the validity of group motivation. . . .
6. that the virtues of the small group should be strengthened and used as a basis for the strengthening of the virtues that will be useful in the larger group. . . .
7. that the limits and the conflicts between the small and large group relationships must be clearly defined and situations must be provided for solving problems in which such conflicts occur. . . .
8. that the personality of the teacher or leader is a fundamental factor in the establishment of standards and traditions. . . .
9. the utility of mottoes, slogans, shibboleths, taboos, and other words or phrases in unifying or organizing for each individual the standards which he is accepting from the group. . . .
10. the validity of the law of effect. . . .
11. that ideals and attitudes are generalizations of specific habits. . . .
12. that ideals are best strengthened through emotional experiences [pp. 31-40].

The experimental proof of these hypothetical proposals makes up the latter half of the report. The experiment consists in the application of two series of cleverly devised tests to several groups of children, selected principally from Boy Scout organizations. In the case of some of the groups a training period of about seven weeks was provided between the two series of tests; other groups were used for control purposes, no specific training being given. The element chosen for measurement was the ideal of trustworthiness. In devising the materials for the experiment "it was decided that the tests must confront the individual with real, not imaginary, situations; that the only way to learn whether a boy will steal is to give him the opportunity" (p. 64). After considerable preliminary work two series of ten tests each were devised. The tests measured such responses as yielding to suggestions, accepting help contrary to instructions, keeping overchange, cheating, etc.

Comparisons between the first and second series of tests are given for sixty-seven subjects, twenty-two of whom belonged to control groups. The results of the training showed considerably greater improvement in the experi-

mental than in the control groups, indicating that the effort to develop trustworthiness had been effective. The added fact that the subjects with Boy Scout training made higher scores than the groups selected from other sources might be a further indication of the effectiveness of the training of the Boy Scout organization. However, considering the small number of cases used, there are a number of unmeasured factors which may enter into the final comparisons.

The significance of the investigation lies not so much in the quantitative results of this particular experiment as in the demonstration that it is possible to get an objective analysis of the functioning of ideals and attitudes. Further investigations of this character should prove of material assistance in the development of more objective methods of moral and social education.

G. T. BUSWELL

*The problem of exceptional school children.*—The development of the testing movement, especially the employment of intelligence tests in the survey of educational situations, has brought more and more to the attention of educators the necessity of knowing as accurately as possible the ranges of intellectual difference that exist among the various school groups. The importance of the problem has been realized for some time, but no comprehensive and thoroughgoing policy for dealing with the situation has been devised. It was to assist in the formulation of just such a well-defined scheme of procedure as is needed that Dr. Gesell<sup>1</sup> undertook an analytical study of the conditions in the city of New Haven. The purpose and scope of the survey are well stated in the opening paragraph of the Introduction which reads as follows:

This brief volume is based on a study of actual conditions. It aims not only to report the facts, but to give them a general interpretation from the standpoint of public policy. Our purpose is to furnish, concisely and concretely, a just picture of the magnitude of the problem of exceptional children, and to indicate the lines for the development of permanent constructive measures with reference to these children [p. 5].

Chapter i defines mental hygiene and points out the necessity of securing more complete biographies of the children who enter the public schools. The author takes cognizance of the administrative difficulties involved and suggests seven specific undertakings that seem to be feasible of achievement. The second chapter describes the mental survey of the 24,000 school children of New Haven. A very helpful classification of mental types is given in the form of a chart. The various tests that were employed in the survey are exactly reproduced, and the manner in which they were used is set forth clearly. Chapter iii presents the mental status of the deficient school children. The comparative data are presented in the form of simple graphs that are easy

<sup>1</sup> ARNOLD GESELL, *Exceptional Children and Public School Policy*. New Haven, Connecticut: Yale University Press, 1921. Pp. 66.

to read. Chapter iv gives the data on the superior and atypical children. Nine groups of such cases are given, the data being shown by schools for the entire system. A comparison is also made between school children and children in a county home for dependents. Chapter v presents a plan for meeting the situation in New Haven and discusses a detailed plan or model program for the community care of mentally deficient school children. This final chapter discusses the problem of state policy in providing for exceptional children. The law in Connecticut which was passed to establish a division of special education and standards under the State Board of Education is given in full. The law concerning vocational probation is also given.

The discussions presented by Dr. Gesell are stimulating and suggestive. The argument for a state policy is especially well worked out, and enough details are given to prove of very great help to educators who are interested in securing legislation for the purpose of establishing adequate machinery for carrying out a constructive program of education for exceptional children. The volume should prove of interest and profit to all students of education because of the valuable information presented, the well-defined method of attacking the problem, and the constructive suggestions for future development of special education.

H. W. NUTT

*A civics text for secondary schools.*—The present state of courses in community civics is disordered in the extreme; they begin anywhere and proceed in no particular direction and without apparent objectives. Mr. Howard C. Hill<sup>1</sup> has rendered a real service toward remedying this condition by thinking the subject through, clarifying aims, developing a basic principle of procedure, and evolving from the multiplicity of diverse topics a unified and coherent view of the complexities of community life. Add the fact that this study is the result of experience in classroom teaching rather than of armchair theory, and the reader at once assumes an expectant attitude which close examination will not disappoint.

The keynote of interdependence is struck in the first chapter and maintained throughout. The general organization follows the development of the individual through the progressive phases of his life-experience: from the family, school, church, and community in general, through the labor group and, finally, the political group. Sociological and economic phases are emphasized more than in most texts, and the political is rather strictly subordinated.

Part I, "Group Life," is unique in its selection of sociological topics and is especially valuable in establishing in the individual a sane attitude toward his world. In Part II the usual civic problems are considered: immigration, health, police, fire protection, recreation, civic beauty, and the handicapped. Part III, "Industrial Society," is an able presentation of the exceedingly

<sup>1</sup> HOWARD COPELAND HILL, *Community Life and Civic Problems*. Boston: Ginn & Co., 1922. Pp. xx+528+xxxiii. \$1.40.

difficult problems of economic organization, stated simply, concretely, and objectively. An attempt has been made to give criteria for judging industrial problems and to establish ideals of fairness. In Part IV, "Government and Politics, the relation of the individual to his government is outlined in such a way that no feeling of enmity can exist. While the subject is frankly the machinery of government, nevertheless the preparation has been so directed that it is machinery whose uses the pupils already know. Parts II and IV, therefore, represent advances over the older texts in method of presentation, while Parts I and III represent a new and vital contribution.

The general method of approach to each topic is (1) a statement of the need, which serves as motivation; (2) the story of its evolution; (3) a description of the function of the agency; (4) an examination of the control or administration through local, state, and national units; and (5) the final placing of responsibility upon the citizens, with definite suggestions as to things for the pupils to do. A summary concludes every topic.

The style is simple, direct, forward moving, and pleasing; the vocabulary is that of the average high-school student. Abstract terms and the summary form of statement have been avoided so far as possible. Concrete examples from the world of the child's experiences lend objectiveness, and sufficient details are included to give color and to illuminate meanings.

The pedagogic aids are invaluable to teachers in adjusting and adapting the work to their own needs. At the end of each chapter is an extensive list of readings for pupils, not only on the study level, but also for information and inspiration. The range of tastes appealed to will largely solve the question of dealing with individual differences. Each chapter also has readings for teachers, and questions for debate. The "Topics for Compositions" help to bring the general problem home to the immediate situation. In connection with each minor topic are questions and problems to vitalize lessons, to make a memoriter rendition of the text useless, and to direct attention in the form of action away from the book into the community. In many cases suggestions are given as to where to find the information called for. The questions are such as do not readily occur to the average teacher, but whose value she instantly realizes; they open up vistas for thought and action.

The text is a distinctly valuable contribution to the field.

MARY G. KELTY

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*New texts in chemistry.*—In the preparation of a new text<sup>1</sup> for high-school classes, the authors of the well-known *First Principles of Chemistry* have taken the following viewpoints; (1) there is still a very general agreement of opinion

<sup>1</sup> RAYMOND B. BROWNLEE, ROBERT W. FULLER, WILLIAM J. HANCOCK, MICHAEL D. SOHON, and JESSE E. WHITSIT, *Elementary Principles of Chemistry*. Boston: Allyn & Bacon, 1921. Pp. ix+588+17.



as to the content of elementary chemistry; (2) because of this general agreement, "no startlingly new or radical changes in subject-matter or its treatment" are adopted; (3) the development of chemical industry and chemical knowledge has been so great during the twentieth century and during the Great War period that new material must find a place in an elementary course.

The new text differs from, and is a great improvement over, the old in several important respects. First, the excellent illustrations have been increased in number. Second, the questions at the close of each chapter have been revised, and some valuable exercises added. Third, the subject-matter has been expanded and rearranged. In this connection one finds new or revised discussions on such topics as electric furnaces, foamite fire extinguishers, colloids (an excellent chapter), glass manufacture, aluminum alloys and aluminum silicates, atomic numbers, matches, hydrogenation of oils, industrial nitrogen fixation, gaseous and liquid fuels, humidity and ventilation, radium and radioactivity, etc. Fourth, the number of portraits of distinguished chemists, with valuable legends, has been increased. Fifth, the appendix contains additions and corrections on physical constants of the elements and common gases, volatility of compounds formed by double decompositions, solubility of solids, formulas and valences of important complexions, and degree of ionization of important compounds.

The book contains nearly 200 pages more than the older text. The illustrations, portraits, and printing are remarkably well done. In its mechanical features, as well as in its choice, arrangement, and treatment of subject-matter, the new book merits even greater success than the earlier publication of these authors. It has set a standard which few high-school chemistry texts have attained.

Another valuable book for high-school use is a recently published manual<sup>2</sup> which presents the main scheme of simple qualitative analysis without the complications of special conditions, gives working directions for each test rather than a description of it, and shows molecular equations for all reactions involved in the tests.

The introduction discusses within a few pages (1) the ionization idea as applied to simple acids, bases, and salts; (2) the simple processes employed in analysis—precipitation, filtration, electro-deposition, bead tests, and flame tests; (3) the grouping of metals according to the usual classifications for analytical tests. With this concise preliminary view, the pupil can set about the work of the tests which follow.

Directions for testing are so simple that a high-school pupil of chemistry can, after a semester of fundamentals, obtain excellent results. The manual should find particular use in the hands of the pupil who becomes interested in analysis and carries it on in addition to the regular course during the second semester. In one of the reviewer's classes four pupils have, because of such

<sup>2</sup> F. C. REEVE, *Elementary Qualitative Analysis*. New York: D. Van Nostrand Co., 1921. Pp. vii+143.



interest, begun these tests and will continue the work during spare time in their second semester's study of the subject. This provides an outlet for their intellectual interest and at the same time strengthens their understanding of the regular course. The book should also find a place in a high-school course in qualitative analysis which follows the first year of chemistry. There is, however, so little theory and description of the tests that, without lectures or other books to interpret the reactions involved, there is danger that the analytical work may become mechanical.

CHARLES J. PIEPER

*History, biography, and government.*—Little progress has been made in the social science group of studies in the application of the principle of unity. Separation is now the rule in this field. On various levels of instruction one frequently finds courses in history, sociology, political science, economics, and geography, but rarely a course which is an attempt at unification of all of these. The chief difficulty in the way of the organization of a course of this latter type is the paucity of suitable material. To remove this handicap is the goal which some reformers have set for themselves. One step toward this goal has been made by the publication<sup>1</sup> of the material of a course given by a teacher in one of the large high schools of the Middle West.

While government receives the most emphasis in this book, history, biography, sociology, and economics receive considerable attention. For example, the book contains discussions of the governments of the United States and Germany, great American statesmen, authors who helped to make the American ideal, the French Revolution, the Great War, and revolutionary theories of government and economic relations.

Generally speaking, the author has achieved considerable success in the unification of these different phases of the social studies. To the reviewer's knowledge, the book is the best example that has appeared of the sort of unification that many reformers desire.

R. M. TRYON

*Modern verse classified by content.*—Teachers of English who are giving ear to the demand that along with the classics of our language the best of modern literature should be given a hearing will welcome a late anthology.<sup>2</sup> The editor has brought together about 150 contemporary poems, by authors living today, and has added 80 pages of notes, containing many invaluable anecdotes received direct from the poets themselves. The poems are grouped under the headings "The Sea," "The City," "The Country," "War," "Children and Home," "Friendship and Love," and "Thought and Fancy." It is

<sup>1</sup> BRIDGET T. HAYES, *American Democracy*. New York: Henry Holt & Co., 1921. Pp. xxxvi+405.

<sup>2</sup> ANITA P. FORBES (editor), *Modern Verse, British and American*. New York: Henry Holt & Co., 1922. Pp. xxi+297.

inevitable that the verse in such a volume shall range from almost worthless doggerel to exalted poetry. If any other adverse comment were in place concerning such an admirable effort, it would be that the poems present an equally wide range in difficulty; some are intended for young children; some are very difficult, even for adults. However, a discriminating teacher will be able to make excellent class use of these very elements, inequality in artistry and in difficulty.

R. L. LYMAN

*Stories of American life.*—The phrase, "imaginative training in the quality of American life," quoted from the preface of a new anthology<sup>1</sup> of American short stories, indicates the editor's purpose.

Dr. Ramsay has assembled sixteen short stories of the best American writers, grouping them under the headings: "Stories of the Frontier," "Stories of Social Heritage," "Stories of Communal Consciousness," and "The Regionalist at Work." Some of the tales are well known, such as "The Luck of Roaring Camp"; some, like "Ellie's Furnishings" by Helen R. Martin, are less well known. All are admirable. Even more useful for the average teacher than the selection of stories itself are the study questions and answers and the classified reading list of 250 stories at the close of the book. If it be true that the most original contribution of America to the literature of the world has been the development of the short story; if in this contribution we may find interpreted American ideals, habits, and ambitions, what more appropriate than such high-school courses as Dr. Ramsay here advocates!

R. L. LYMAN

*The project in home economics.*—Education which is to prepare for the activities of life should take place where it can be normal. If normal conditions are not to be found in school, then we must go outside the school to the places where boys and girls may assume actual duties and responsibilities. In some subjects of study most of the work may be done at school; in the case of other subjects a goodly portion of the work or training must take place outside of the school. Home economics is a subject in which much of the work must be performed outside of the school. As in most instruction, either inside or outside of school, the value of the work is dependent on the methods employed by the supervisor or teacher in conducting the work.

A recent contribution<sup>2</sup> in the field of home economics contains many valuable suggestions as to the use of the home project in teaching the subject.

<sup>1</sup> ROBERT L. RAMSAY (editor), *Short Stories of America*. Boston: Houghton Mifflin Co., 1921. Pp.[xi]+348.

<sup>2</sup> *The Home Project*. "Home Economics Series No. 6," Bulletin No. 71. Washington: Federal Board for Vocational Education, 1921. Pp. 76.

In order that one may have clearly in mind what is meant by the home project the author has set up the following principles:

First. That it shall be a purposeful activity on the part of the pupil. Second. That it shall be a normal unit of home work offering opportunity for the acquisition of new knowledge and the development of manipulative and managerial skills. Third. That it shall offer experience in home-making activities under as nearly normal conditions as possible. Fourth. That there be a close correlation between the project and the classroom instruction. Fifth. That the project be carefully planned for, carried through to completion, and reported upon by the pupil. Sixth. That adequate supervision by the classroom teacher be provided [pp. 7-8].

In discussing the types of home projects the author writes:

All activities of the home which deal with food, clothing, house management, house planning and decorating, care of children, home nursing, laundering—offer opportunity for home-project work. They will differ in complexity and time required for completion, but each should be a normal unit of work as found in the household. . . . In every instance a home project should afford the opportunity not only for doing a piece of productive work but for gaining new knowledge and skill through the working out of a real problem [p. 16].

A great many different projects may be developed in each of the fields mentioned. A supper project in the field of foods and a clothing budget project in the field of clothing have been worked out in detail to illustrate the method of planning and reporting the home projects. The length of the home project will vary with the age and ability of the student, but the completion of the project when once begun will depend on the acquirement of a definite standard of achievement. Other phases of the home-project method such as credit for the work, the proportion of the course taught by the home-project method, the supplementing of home projects with classroom projects, and the use of the home project in the training of teachers of home-making are given consideration. In the Appendix are numerous project reports of pupils in vocational classes and students in teacher-training departments.

The bulletin contains many valuable suggestions concerning the use of the home-project method in home economics. It will be read with interest by all teachers of the subject.

JAMES VAUGHN

*Geography for upper-grade pupils.*—Most of the texts on geography which we find in our schools emphasize the importance of the United States in relation to the rest of the world. It is desirable that older pupils in the elementary schools and younger pupils doing secondary work have adequate instruction regarding the entire world as a unit, especially from the viewpoint of a foreign writer. A recent volume of the Cambridge series<sup>1</sup> gives a general survey of

<sup>1</sup>A. R. CHART-LEIGH, *Cambridge Geographical Text Books—Junior*. London, England: Cambridge University Press, 1921. Pp. xi+284.

the world in a clear, concise manner, paying particular attention to both the British empire and the geographical effects of the late war.

The first part of the text deals with such essential topics as "The Shape, Size, and Movements of the Earth," "The Atmosphere," and "Life on the Earth's Surface." These introductory chapters may serve as a basis for a course of practical work for the pupils. As Mr. Chart-Leigh states,

Thus the contour maps in Chapter i, the plotting of isotherms and isobars in Chapter ii, and the study and compilation of maps showing the distribution of plants, animals, and population will enable the teacher to revise in a practical form the work of earlier stages in this subject [p. v].

The remaining chapters comprise a study of the six continents. The author first gives a general treatment of each continent, later describing more fully the several political divisions of which each continent is composed. A notable feature is the adequate description of the governments of the different countries.

A list of questions and exercises provided for each chapter will enable the teacher to make the work very practical. These exercises are well adapted to the topics and will serve as a guide for supplementary work. The accompanying illustrations are numerous and appropriate. The ordinary maps which are characteristic of many geographies are entirely lacking, it being intended that the book be used in connection with an atlas.

While the content of this text is more advanced than the usual work for the upper grades, the omission of many confusing details makes it simple enough for the average pupil of junior high school age.

W. D. BOWMAN

### CURRENT PUBLICATIONS RECEIVED

#### GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

- BROOKS, FOWLER DELL. *Changes in Mental Traits with Age*. "Teachers College Contributions to Education," No. 116. New York: Teachers College, Columbia University, 1921. Pp. 86.
- DEWEY, EVELYN. *The Dalton Laboratory Plan*. New York: E. P. Dutton & Co., 1922. Pp. ix+173. \$2.00.
- DUNN, FANNIE WYCHE. *Interest Factors in Primary Reading Material*. "Teachers College Contributions to Education," No. 113. New York: Teachers College, Columbia University, 1921. Pp. 70.
- GARNETT, JAMES CLERK MAXWELL. *Education and World Citizenship*. London, England: Cambridge University Press, 1921. Pp. x+515.
- GESELL, ARNOLD. *Exceptional Children and Public School Policy*. New Haven, Connecticut: Yale University Press, 1921. Pp. 66.

- HARTMAN, GERTRUDE. *The Child and His School*. New York: E. P. Dutton & Co., 1922. Pp. xiii+248. \$3.00.
- MONROE, W. S. *Types of Learning Required of Pupils in the Seventh and Eighth Grades and in the High School*. "Bureau of Educational Research Bulletin," No. 7. Urbana, Illinois: University of Illinois, 1921. Pp. 16. \$0.15.
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- STONE, CLIFF W. *Standardized Reasoning Tests in Arithmetic and How to Use Them*. "Teachers College Contributions to Education," No. 83. New York: Teachers College, Columbia University, 1921 [revised]. Pp. v+33.
- THORNDIKE, E. L. *The Psychology of Arithmetic*. New York: Macmillan Co., 1922. Pp. xvi+314.
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- VOELKER, PAUL F. *The Function of Ideals and Attitudes in Social Education*. "Teachers College Contributions to Education," No. 112. New York: Teachers College, Columbia University, 1921. Pp. v+126.

## BOOKS PRIMARILY FOR HIGH-SCHOOL TEACHERS AND PUPILS

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- BUHLIG, ROSE. *Business English*. Boston: D. C. Heath & Co., 1922 [revised]. Pp. x+473.
- Curso de Taquigrafía*. New York: Gregg Publishing Co., 1921. Pp. vii+80. \$1.50.
- HALL, GUILLERMO. *Poco a Poco*. Yonkers-on-Hudson, New York: World Book Co., 1922. Pp. vi+343.
- HEADLAND, A. R., and TREBLE, H. A. *A Dramatic Reader. Book I*, pp. 112. *Book II*, pp. 112. *Book III*, pp. 175. New York: Oxford University Press, American Branch, 1921.
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- ROSENBERGER, NOAH BRYAN. *The Place of the Elementary Calculus in the Senior High School Mathematics*. "Teachers College Contributions to Education," No. 117. New York: Teachers College, Columbia University, 1921. Pp. vii+81.
- Short Stories of America*. Edited by Robert L. Ramsey. Boston: Houghton Mifflin Co., 1921. Pp. xi+348. \$1.44.

- STRONG, ARCHIBALD T. *A Short History of English Literature*. New York: Oxford University Press, American Branch, 1921. Pp. xi+404.
- WEBSTER, HUTTON. *World History*. Boston: D. C. Heath & Co., 1921. Pp. xxxi+755.

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- CRIST, RAYMOND F. *Federal Citizenship Textbook, Part III*. Washington: Government Printing Office, 1921. Pp. 104.
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- Bulletin No. 47, 1920—*Proceedings of the Fifth and Sixth Annual Meetings of the National Council of Primary Education*.
- Bulletin No. 7, 1921—*Organization for Visual Instruction*.
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- Bulletin No. 28, 1921—*Educational Survey of Wheeling, West Virginia*.
- Bulletin No. 35, 1921—*The Work of the Bureau of Education for the Natives of Alaska*.
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- Bulletin No. 41, 1921—*Educational Work of the Boy Scouts*.
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- CHURCHWARD, ALBERT. *The Origin and Evolution of the Human Race*. New York: Macmillan Co., n.d. Pp. xv+511.
- CRANE, A. G. *Education for the Disabled in War and Industry*. "Teachers College Contributions to Education," No. 110. New York: Teachers College, Columbia University, 1921. Pp. iv+83.
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- RAINWATER, CLARENCE E. *The Play Movement in the United States*. Chicago: University of Chicago Press, 1922. Pp. xi+371. \$2.75.
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